INDIAN RECREATIONS;

CONSISTING

CHIEFLY OF STRICTURES



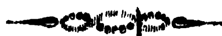
ON THE

DOMESTIC AND RURAL ECONOMY

OF THE

MAHOMMEDANS & HINDOOS.

BY THE REV. WILLIAM TENNANT, LL.D. M.A.
AND LATELY ONE OF HIS MAJESTY'S CHAPLAINS IN INDIA.



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PREFACE.

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As each of the ſections in this volume contains a ſhort eſſay on the particular ſubject treated of, a perfect arrangement of the different parts of Rural Economy has not been ſo much ſtudied as variety: Some of the agricultural details are unavoidably minute; and it has been deemed eligible to relieve the reader's attention by introducing other topics, leſs tedious, and more intereſting to the generality of readers. In a few inſtances facts are alluded to, and authors quoted, poſterior to the date of theſe Eſſays; this the author thought himſelf warranted to do when the work was in the preſs; judging that his readers would be deſirous to ſee his ideas confirmed, and his

reaſonings

reaſonings elucidated by every authority he could procure.

In acquiring the neceſſary information regarding the various branches of rural economy contained in this volume, the author obtained the ſame valuable aſſiſtance he enjoyed in treating the different ſubjects diſcuſſed in the firſt; he has therefore good reaſon to think that in no article of importance his readers can be miſled; and will hope to receive from them that indulgence which one of the more correct of the ancients has offered to his contemporaries, and to poſterity:

Non ego paucis
Offendar maculis, quas aut incuria fudit
Aut humana parum cavit natura.

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16 l. 5. *for* over-reaped, *read* overcropped.
56 l. 5. from bottom, *for* pidgeon, *read* widgeon.
76 l. 13. *for* with, *read* within.
97 l. 2. *for* then, *read* there.
157 l. 12. *for* ſanction, *read* exertion.
192 l. last. *for* Sochar, *read* Lochar.
278 l. 9. *for* heading, *read* treading.
314 l. 9. from bottom, *for* higher, *read* lighter.
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INDIAN RECREATIONS.



THE POPULATION OF BRITISH INDIA.

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Calcutta, Jan. 1797.

THE population of this country cannot be ascertained, as in Europe, by public registers of births, marriages, or burials. Loose and inaccurate, as the calculations there have hitherto been, they are founded on more certain data than can be obtained in India.

THE same tillage, and proportion of manufactures, support a much greater number of people here, than they could maintain in Britain; and the latest computations rise considerably higher than those loose conjectures that were formerly hazarded on this subject. These estimated the population of Bengal, and the upper provinces, at eleven millions; and that of our possessions in the Deccan, at nine. About nine

years ago, the collectors were required to give an opinion of the population of their respective districts, and their report founded an estimate of twenty-two millions for the inhabitants of Bengal and Behar.

By an official enquiry made in the district of Purnea, there were found 80,914 Ryuts holding leases; 22,324 artificers paying ground rent, in 2,784 villages, upon an area of 2,531 square miles. Allowing the number of five to a family, this gives about 2003 to a square mile. The whole provinces in this presidency contain 162,500 square miles; and by this estimate, a population of nearly thirty-three millions. In this district there are a few lands amounting to an eighth part of the whole, that are not included; nor the inhabitants of any city or considerable town. Although, therefore, one eighth part of Bengal be allowed for waste land, this calculation will apply to it without much deduction.

Actual surveys have been made of different districts; and in these the land occupied in tillage has been distinguished from that occupied by water, or waste; and the proportion of the latter description has been found to be about one fourth of the whole surface. The cultivated land in Bengal, applying this proportion, will amount to 31,331,499 acres; and it has been found by actual enquiry into the extent of land occupied by 70,000 cultivators, that each possessed about eighteen begahs in actual tillage. Hence the cultivated acres in Bengal, above stated, require

require 5,265,432 tenants. To thefe the proportion of artificers and manufacturers muft be added, which has been found to be eleven to forty, which gives 6,718,154 heads of families, at five perfons each; or 33,590,770 for the number of inhabitants.

A THIRD eftimate of the population of thefe provinces has been founded on the average rent paid by each tenant. The rent roll produced by 6[illegible],047 leafes, has been found to amount to 498,020 S. Rs. or nearly feven rupees to each tenant.

THE grofs rent paid by the farmers the firft year of the permanent fettlement amounted to 3,63,88,129 Rs. or 6,064,688 tenants; whofe families, at five each, give a population of above thirty millions of inhabitants. The near coincidence of thefe refults from different grounds, fupport in fome degree the credibility of each.

THE population of this country has been eftimated from the confumption. The moft common articles of diet which may be deemed the neceffaries of life to a native, are rice, fplit peafe, and falt: eight pounds of the firft article, two of the fecond, and two ounces of falt, is reckoned the daily confumption of a family confifting of five perfons in eafy circumftances. Hence the yearly fupply of falt for each individual is nine pounds. A confiderable portion of the falt manufactured in Bengal is exported: on the other hand, the mountaineers of the weft, ufe either rock falt, or

an

an impure compofition extracted from afhes or from nitre. Hence the quantity confumed may probably correfpond nearly to that manufactured in the country; and the annual fales amount to 35,31,944 maunds, which require for confumption 32,228,986 individuals.

The fifth and laft method which has been adopted for afcertaining the population here has been eftimating the whole produce of the cultivated acres according to the above rate of confumption in each family allowing for feed and a fmall proportion for the ufe of cattle To ,47,77,797 begahs in cultivation this gives a grofs produce of 34,28,57,140 maunds. The average value of this annual produce, may amount to 20,[illegible]0.000 Rs. a fum correfponding to ten rupees and a half for each acre: a very moderate produce, but not difproportioned to the exertions of Indian hufbandry.

From our late acquifitions in the Myfore and Carnatic, the population of that part of the Britifh poffeffions muft be more than double within thefe laft five years. Eighteen or twenty millions cannot be reckoned an extravagant eftimate for fo large a country—If in fact the number of people fall fhort of this computation in the Deccan, the deficiency muft be more than compenfated by large acquifitions of territory from the provinces of Owde. The dominions of the Eaft-India Company, therefore, contain a population of probably not lefs than fifty millions of fouls: an eftimate,

eſtimate, whether extravagant or not, certainly far ſhort of the number capable of finding maintenance, on ſuch a vaſt tract of fertile ſoil, lying in a climate propitious to all the operations of huſbandry.

These computations are founded on fur-niſhed by a learned judge who, from long reſidence in the country, and a perfect knowledge of the language, is, perhaps, more intimately acquainted with its ſituation than any other perſon in India. After all, however, it is not pretended, that an accurate ſtate of the population can be given till each collector in his diſtrict make out an exact return. The populouſneſs of this country, when aſcertained, will always afford a pretty juſt idea of the nature of its government: the early and productive marriages of the Hindoos will always bring the number of people to correſpond with the means of ſupply: the latter will be in proportion to the degree of protection and ſecurity afforded.

In a ſociety conſiſting almoſt entirely of labourers, whoſe food and cloathing is ſo limited, little ſcope is afforded to agriculture or manufactures, in ſupplying its own wants. The increaſe of exported produce can alone give room for greater tillage, and call forth a larger portion of induſtry, and of hands to manufactures. "The inhabitants, wanting a vent for their produce, have no inducement to greater induſtry. If more produce were attained, its market being barred, induſtry would be unrewarded. The neceſ-

ſaries

faries of life are cheap; the mode of living fimple; and though the price of labour be low, a fubfiftence may be earned without the uninterrupted application of induftry. Often idle, the peafant and manufacturer may, neverthelefs, fubfift. A few individuals might acquire wealth, by diligent application; but the body of the people, doomed to poverty by commercial limitations, can apply no more labour than the demand of the market is permitted to encourage. If induftry be encouraged, the prefent population is fufficient to bring into tillage the whole of the wafte lands of Bengal and Bahar; and in moft diftricts improvement may be expected whenever new channels of trade are opened, to take off more or new articles of produce*."

THE hufbandry of India, probably, requires a greater number of hands to the fame extent of ground than that of England, as here the fame field in the common culture, yields feveral crops, two, and often three, within the year. The operations of the farmer, though lefs interrupted by weather, are more numerous; indeed they cannot be faid ever to ceafe. The different varieties of pulfe and millet have fcarcely any appropriate feafon. They vegetate rapidly; and are ufeful in occupying an interval after a late harveft, which will not permit the ufual courfe of hufbandry. The oil plants in general ripen in the winter, excepting the Sefame, which is gathered in the rains.

FROM

* Remarks on the Agriculture &c. of Bengal.

From the circumſtance of the people living on vegetable diet, and their climate yielding ſeveral crops in the year, ſome good judges have ſuppoſed, that four times the number of people might be maintained on the ſame quantity of land, that can be done in Britain.

IMPERFECTIONS OF HINDOO HUSBANDRY, AND THE OBSTACLES TO ITS IMPROVEMENT.

. . . .

Berhampore, 1797.

WITH an excellent ſoil, and climate, and poſſeſſed of almoſt every variety of cultivated grain, and a competent number of hands to raiſe them, the imperfection of huſbandry in Hindoſtan is far greater than we ſhould have expected.

1. THE beſt ſeaſon of ſowing is not ſufficiently attended to: the month of the rains has been found the moſt advantageous period for rice, ſince it admits of the harveſt in the commencement of the dry weather. Hence the rice of this ſeaſon is not only moſt plentiful, but is not liable to early decay. From the want of a ſufficient number of hands, induſtry and capital, this crop is ſometimes ſown in the dry weather, and at the beginning of the rains, when the return is never equally profitable. In the

the caſe of ſowing during the dry ſeaſon, the expence of irrigation becomes ſo great as muſt encroach deeply on the profits. Though ſeveral ſeaſons occur here in the ſame year, yet much greater attention to the period ſuitable for different crops, than is paid by the farmer, is neceſſary.

2. THE Hindoo peaſant is deficient in the choice and ſelection of the beſt varieties of each grain. The culture of almoſt every plant and particularly of the *gramina*, in proportion as it has been long diffuſed, induces numerous varieties. The ſeveral ſeaſons of cultivation, added to the influence of ſoil and climate, have multiplied the different ſpecies of rice, into endleſs variety. From the awned and unawned, from that growing on the mountains to that produced in humid ſituations, there are various diverſities adapted to every circumſtance of ſoil, climate, and ſeaſon, which might exerciſe the judgment of ſagacious cultivators, but which the Hindoo overlooks, except in the moſt obvious caſes. The enlightened farmers in Britain would here find ample room for improvement.

OF wheat and barley there are much fewer varieties: and I do not find in practice, that the ſimple expedient of changing the ſeed is attended to. The moſt common ſamples are ſmall, and not ſufficiently plump. The barley is probably too mean a ſpecies for our excellent ſoil and climate. It is invariably big, or the Hordeum tetraſtichum of Linnæus. The

 wheat

wheat is a fmall long awned variety, apparently unchanged for many centuries.

3. There is great want of green crops for houfe feeding: a circumftance the more remarkable, fince, during the dry months, the fields not in crop, are reduced to a ftate of abfolute fterility, and the ftock barely kept alive. This is the more inexcufable, becaufe there is in the occupation of hufbandry here every variety of pulfe that is known. No feafon is without its appropriate fpecies; but moft fpecies are fown or ripen in the winter.

As all thefe thrive on poor foils, and require but little cultivation, they would prove moft valuable products in hufbandry, could they be adminiftered as green food, or applied as hay. The millets are alfo in great variety: they bear a low price; and are the food of the pooreft claffes. Several of thefe grains are reftricted to no feafon; vegetate rapidly, and occupy intervals between other crops: yet no contrivance has been fallen upon to have a fufficient fupply of them for the fuftenance of live ftock during winter and fpring. The maize, though the moft productive of all corn, and not inferior as human food, has not yet been converted to this purpofe. The coarfe ftraw of this and fome other forts of corn feem to make up the whole of the wretched provender of this country, where the cattle that furvive hunger, at certain feafons are barely able to walk.

4. The univerſal uſe, and vaſt conſumption of vegetable oils muſt be regarded as in ſome reſpects prejudicial to agriculture. Much labour, and a great proportion of the cultivated land is occupied in the produce of this article, which might partly be ſaved by the uſe of animal food: oil is neceſſary to ſeaſon and enrich their food, where deprived of that article of diet. In anointing the body, and in ſupplying their lamps, immenſe quantities are conſumed. Hence the extenſive cultivation of lintſeed, palma chriſti, ſeſamum, and many other articles that trench deeply upon the productive grounds for human ſuſtenance: this muſt be highly diſadvantageous, if it be true as ſome have alledged, that all crops are ſcourgers, in proportion to the oil they contain.

5. Among the imperfections of our huſbandry the too ſcanty cultivation of the moſt valuable crops cannot be omitted. Tobacco, ſugar, indigo, cotton, mulberry, and poppy, are by far the moſt important productions of Bengal: theſe are not only rich in proportion to the land they occupy, but are moſt valuable in commerce and manufactures. They require land highly cultivated, and appropriated to their production; and there can remain no doubt, that a ſpirited huſbandry would convert a far greater proportion of the land to theſe valuable productions. Theſe do not hitherto occupy perhaps the twentieth part of the land which a greater capital, and more active huſbandry would force into their production. This end once accompliſhed, the number

of productive labourers, and the profits of husbandry would be encreased in a very great degree. Sugar, as it ripens during the end of the dry season, might of itself probably supply the grand desideratum of Indian husbandry, the want of green food for cattle. It is the most nutritious of all vegetable food for every animal, that has yet been fed with it.

6. The paltry and insufficient implements of husbandry forms another great obstacle to good cultivation. In Spain, Italy, and the southern countries of Europe, these implements are bad; but yet here they are outdone by the Hindostanee spade or short hoe, by the wretched substitute for a harrow, and the trifling plough Two or three pair of oxen are assigned to each plough relieving one another, till the daily task be compleated Several ploughs in succession deepen the same furrow. or rather scratch the surface; for the plough wants a contrivance for turning the earth, and the share has neither width nor depth to stir a new soil A second plowing crosses the first; and a third is sometimes given diagonally to the preceding. These are frequently repeated, and followed by the substitute for the harrow before the tilth can be compleated. The weeders use the short handled spade, and sit down to their work: However familiar that posture may be to an Indian, his labour is not employed to advantage in this mode of weeding.

Expensive implements of husbandry, or complex machinery, are, perhaps, not necessary in oriental agriculture

agriculture, yet it cannot fail to ſtrike every obſerver that their tools are far below the ſtandard neceſſary for cheap and well executed labour.

THE univerſal uſe of the reaping hook, inſtead of the ſcythe, occaſions alſo much unneceſſary labour. This does not ariſe merely from the want of a more expeditious implement, but from the practice of ſelecting the ripeſt plants, which waſtes much time, while it damages the crop. Even the advantages of this practice are not fully gained; for, in one field, while the Ryut gathers the plants as they ripen, in another you will ſee the crop allowed to paſs the period of maturity. The loſs thus incurred by the grain which drops before harveſt, is ſo conſiderable, that if the field remains unſown, it will afford a crop by no means contemptible.

7. TILL lately the want of roads was much felt in Great Britain; in Hindoſtan, this want ſtill continues to operate with full force againſt its rural economy. From the low humid ſituation of Bengal, roads could not eaſily be provided ſo as to give acceſs to every field, in every ſeaſon; in the dry months, however, it would prove of vaſt advantage to the farmer to be enabled to carry his produce, by wheel carriage, inſtead of the tedious method of burdens which he now uſes. In forwarding the operations of huſbandry nothing is more effectual than good roads; it is the firſt ſtep to all ſolid improvement; and the ſimple fact, that the Hindoo does not

carry

carry home his crop by means of cattle, is of itſelf a ſtrong proof of a ſtate of huſbandry diſproportioned to the population of the country The boaſted roads of Shah Jehan, and ſome of the Emperors, are ſtill to be ſeen in their remains; but they probably were never very ſubſtantial, otherwiſe they could not have been ſo ſoon defaced. The high roads conſtructed by the Company, are perhaps better executed, but are by far too partial to afford any relief to the country.

8. In every hot climate, irrigation is the grand inſtrument of fertilization: in the higher parts of Bengal, as well as in the interior of Hindoſtan, it is the indiſpenſible requiſite of good huſbandry. From what we learn of China, the rural economy of India appears extremely defective in the article of irrigation, although this ſubject is leſs neglected than that of tranſport. In the management of forced rice, dams retain the water on extenſive plains; or reſerve it in lakes, to water lower lands as occaſion requires. In the ſame culture, ridges are raiſed round the field to retain water, which is raiſed by the ſimple contrivance of a curved canoe ſwinging from a pole. In other ſituations, ridges are alſo raiſed round the fields, both to ſeparate lands, and to conduct the water on conſiderable tracts. Water raiſed by the hand, or by cattle from wells, ſupplies the deficiency of rain in ſome diſtricts. Each of theſe methods, being within their own compaſs, is executed by the peaſants themſelves. But thoſe extenſive ca-

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nals which were dug in the neighbourhood of Delli, and in the Panjab, are not now in uſe; nor is that machinery, ſo general in China, any where uſed in India for raiſing water, though the beneficial effects of it are fully known from experience. Reſervoirs, water courſes, and dykes, are more generally in a progreſs of decay than of improvement.

9. THE ſucceſſion of crops, which engages ſo much of the attention of enlightened cultivators in Europe, and on which principally reſts the ſucceſs of a well conducted huſbandry, is not underſtood in India. A courſe extending beyond the year, has never been dreamt of by a Bengal farmer: in the ſucceſſion of crops within the year, he is guided by no choice of an article adapted to reſtore the land impoveriſhed by a former crop. His attention being fixed on white corn, other cultivation only employs the intervals of leiſure, which the ſeaſons of white corn allow to the land and to labour. It is ſcarcely poſſible to ſpecify the different courſes which obtain in a practice regulated by no other principle than convenience of time; it is no leſs difficult to enumerate the various combinations of different articles grown together upon the ſame field, or in the ſtubble of a former harveſt, or ſown for a future crop before the preceding harveſt be gathered.

A competent notion may be formed of this practice, by conceiving a farmer eager to obtain the utmoſt poſſible produce from his land without any con-

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ſideration of the impoveriſhment of the ſoil. It may be judged that this avidity diſappoints itſelf, as the ſeveral articles deprive each other of nouriſhment, and as the land impoveriſhed makes bad returns for the labour and ſeed.

In moſt ſituations the land over-reaped in this manner ſoon requires to be recruited ; the Indian allows it a lay, but never a fallow. For this there might be ſome apology, did the management of live-ſtock give to lay all the benefit which belongs to this method ; but as this is not the caſe, the putting their lands to reſt is the moſt inexplicable part of their whole ſyſtem. When it has lain long in this ſtate, the inefficacy of the Bengal plough is ſuch that it muſt be preceded by the ſpade ; and the expence of this proceſs is ſo conſiderable, that old lays are rated, in the Ayeen Acbery, at a ſmaller aſſeſſment, from the difficulty and expence of breaking them up.

10. If exhauſted lands in this country are ill managed by being put lay, they are ſtill worſe treated in reſpect to manure. The application of dung as a fuel, has almoſt entirely cancelled its uſes as a manure. The cattle for labour, and for ſuſtenance, are moſtly fed on ſmall commons, or other paſturage, intermixed with arable land, or fed at home on ſtraw. The cattle for breeding, and for the dairy, are fed in numerous herds upon the foreſts or downs : wherever fed, their dung is carefully col-

lected

lected for fuel: the uſe of this article, as a manure, is reſtricted to ſugar cane, mulberry, tobacco, and poppy: and in theſe crops it is applied from neceſſity; becauſe few lands, without this ſtimulus, are ſufficiently rich to raiſe theſe productions. Some Europeans have concluded from the practice of the Hindoos, that manure in a hot climate was unneceſſary for corn crops: the Chineſe, however, are of all nations the moſt induſtrious in procuring this manure, and the ſuperiority of their crops is a full juſtification of the practice.

11. The want of incloſures may be ranked among the defects of Hindoo huſbandry, ſince cultivation ſuffers very conſiderably from the treſpaſs of cattle. A herdſman is but a poor ſubſtitute for a dyke; he ſuffers not the cattle to reſt, an object of no ſmall importance; and by his occaſional negligencies the crops are often hurt. Were all the land under cultivation, as in China, the benefit of incloſure might not be great; but where poſſeſſions are left partly in graſs, the advantage of having them incloſed, and ſubdivided, muſt be apparent.

12. From the want of drill huſbandry, and fallows, the land is but imperfectly cleaned, a circumſtance highly prejudicial to every crop. After the grain has riſen, the rapid growth of weeds demands much labour, and more particularly during the rains, when vegetation is far more rapid than in any European climate. This operation is always tedious,

and imperfectly executed in broad-caſt crops. The eye is not eaſily reconciled to ſee the labourer ſitting to this work, and ſcratching with a ſhort hoe among the promiſcuous grains, where the labour of a day is not equivalent to that of an hour in drilled crops. Wherever a country is fully peopled, as in China, and all hot climates, the culture of the garden is transferred to the field: almoſt every ſpecies of grain is drilled, and perfect cleanneſs for the admiſſion of air, and for allowing the full growth of the plants is an indiſpenſible requiſite of correct huſbandry. Even ſugar cane, a plant of all others the beſt adapted to the drill huſbandry, is in the upper provinces planted thick, and in promiſcuous clumps, which neither admit of ſtirring the ground, the ſuppreſſion of weeds, nor the free circulation of air: circumſtances which alone demonſtrate the imperfection of this branch of huſbandry.

13. THE want of capital employed in agriculture and manufactures, cripples every enterpriſe in Hindoſtan. It not only confines and cramps the operations of the huſbandman, but prevents the diviſion of labour, and conſequently the ſkill of every tradeſman. Here every manufacturer working on his own account, conducts the whole proceſs of his art, from the formation of his tools to the ſale of his production. Unable to wait the market, or anticipate its demand, he can only follow his regular occupation, when called to it by the wants of his neighbours. In the interval he muſt apply to ſome other

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employment in immediate requeſt; and the labours of agriculture, ever wanted, are the general reſource. Thus every labourer and artiſan, who has frequent occaſion to recur to the labours of the field, becomes himſelf a tenant. Such farmers, however, are ill qualified either to plan or execute a well judged ſyſtem of huſbandry, and are idly employed, to the great waſte of their time, in carrying to market the paltry produce of their ſmall farms.

If India had a capital in the hands of enterpriſing proprietors, who employed it in huſbandry and manufactures, theſe arts would be improved; and with a greater quantity and better productions, the ſituation of labourers would be leſs precarious and more affluent, although the greateſt part of the profit might reſt with the owners of the capital. In agriculture, particularly, which is the baſis of proſperity, the want of capital is a bar to all improvement. Supplied with it larger farms would be occupied, greater enterpriſe, and better information would enſue; and thus the various obſtacles to its ſucceſs would be diſcovered and overcome.

14. But the great impediment to improved huſbandry in India has ever been the want of ſecure leaſes, and a permanent intereſt in their poſſeſſions. Hence the levying of rents has in general been a continued ſcene of fraud and evaſion in one part, counteracted by plunder and oppreſſion on the other. The nature and variety of the different tenures has

been

been intricate and complex, almoſt beyond conception; and the conſequence has been that hardly any leaſe has been ſpecific or ſecure. In India the revenue of the ſtate is, in fact, the land rent; hence the management of finances has a more immediate influence on agriculture here, than any other part of the adminiſtration. The tenant who had nothing to protect him againſt a whole army ſent to collect the revenue, but the doubtful clauſes of an obſcure leaſe, was perfectly defenceleſs, and often plundered. This precarious ſituation, without an aſcertained intereſt for a ſufficient time, has fully demonſtrated that no ſpirited agriculture can ever be expected in ſimilar circumſtances.

INDIAN MODE OF SUPPLYING EUROPEAN TABLES.

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Berhampore, Oct. 1797.

No tables in Europe are more plentifully fupplied than thofe of the civil fervants of the Company in Bengal. If after their return to their native country, they endeavour to imitate the luxury and fplendour of the higheft ranks, they are led into it while they remain here by the great abundance and cheapnefs of all kinds of provifions. Game, poultry, fifh, and water-fowl of all kinds, are in great plenty. The barn-door fowl, being a native of Afia, and in many parts here ftill found in its wild ftate, did not furprife me by its appearance, but the numbers reared by a people who do not ufe them as food, certainly did.

The duck is, in Europe, perhaps the moft numerous and varied fpecies of fowls; here the number is

ftill

ſtill ſuperior, and the variety much greater. In many parts I have ſeen them offered for ſale at three and four ſhillings per dozen.

The poultry tribe, however, in India, with a few exceptions, are ſmaller in ſize than the ſame ſpecies in Britain; and as both the grain and vegetable food in Bengal are perhaps of inferior quality, they are not ſuppoſed to poſſeſs the ſame richneſs of flavour. One thing certain is, that as you purchaſe them in the bazars, they are far inferior in weight; and unleſs fed for ſome time before they are produced upon the table, they are a dry, ſtringy, and unpalatable food. The turkey, in particular, falls remarkably ſhort of the ſame bird in Europe: there muſt too be a very conſiderable difficulty in rearing it, as its price is far more exorbitant than any of the poultry tribe in this province. A pair of good turkies coſt, in the Calcutta market, about thirty rupees, or nearly four pounds ſterling. A ſum for which in almoſt any part of the province, you can put twenty or thirty dozen of fowls upon your table.

With regard to the feeding of poultry of all ſorts, Europeans ſeem faſtidious; but they juſtly obſerve, that as frogs, toads, lizards, and noiſome inſects, ſwarm upon the ground to ſuch a degree, as to give it the appearance of being in a ſtate of animation, it requires reſolution to eat animals that are known to eat ſo indiſcriminately. This remark with regard to the hog is ſo juſt, that you certainly cannot

not partake of it with any confidence without being acquainted with the manner of its being fattened.

For these reasons the natives are rather the breeders and rearers than the feeders of poultry and swine for the European tables. The latter business generally falls to the lot of the Portuguese of colour; or is managed in private families by their own servants.

From their poverty, an Hindoo family cannot afford to fatten mutton, beef, or poultry for the market: The advanced price for the provision would far exceed his capital: their industry and foresight are probably as unequal to the task as their capital,; few of them could bestow upon an ox the provision which might feed such a family for months, on the distant view of drawing it back with a profit.

Another article displayed in sufficient plenty at our tables is game: this is sometimes procured by the labours of the chace, but oftener in Calcutta, by the ingenuity of the natives, who expose them for sale in the Bazar at a certain price, as well as snipes, wild ducks, partridges, pheasants, and various species of the ortolan tribe.

Of these are some varieties not known in Britain. Many kinds of game are so plenty, particularly the hares, snipes, and wild ducks; that a small sum will procure them at all seasons in abundance.

There

There is certainly a great difference in the taste of most of these animals, from that of the same species, in the higher latitudes. Either our habits deceive us, or the flavour of the deer and hare is much inferior to what is found in Europe: the remark, however, is general among Europeans, that venison in Bengal is particularly lean and insipid. The hare differs in other qualities, as well as taste, from that of North Britain: it has neither the same strength, nor swiftness, and may be sooner taken by a set of terriers, than yours by a couple of good grey-hounds. The same observation applies to the fox of Bengal; he is a comparatively weak and slender animal, whose velocity in the chase affords but little sport, being impeded by a bushy tail, which he carries in an erect position above his body.

The tables of Europeans are not so much indebted for their most distinguishing ornament either to the poultry, venison, or game, as to a vast profusion of the most beautiful fruits. At an expence hardly worth attention, you may be supplied in most of the towns with a variety of the most delicious fruits, which, in Europe, hardly any fortune could procure. Above twenty different species of these are exposed to sale daily in the bazars of Calcutta, which enable the ladies of that capital to display the elegance of their china and plate on a splendid desert table, without incurring one half of the expence to which such a display of luxury would expose them, in almost any other part of the world. The Dutch merchants, in their

their country houſes around Batavia, are ſaid to equal, or ſurpaſs the citizens of Calcutta in the luxuries of the table, and the ſplendour of their equipage: but as European articles are always neceſſary to the comfort of Europeans, the precarious intercourſe which they have of late maintained with their native country, muſt have greatly impaired their revenues, as well as curtailed their enjoyments.

On a future occaſion, it may be worth while to give an account of the moſt common eſculent vegetables, and fruits of Bengal: at preſent they are only mentioned as they affect the economy of the table.

The Pine apple*, from its expence and difficulty of being procured, it always aſſociated in the mind of an European with ideas of ſhow and magnificence. With little care of cultivation this fruit may be reared in every garden, and may be procured for a few anas, in abundance, by thoſe who have not uſed the means of raiſing it. Inferior in richneſs and flavour to thoſe raiſed artificially, it certainly is; but though much flavour may be loſt, much ſtill remains, and the pine apple of Bengal continues perhaps the moſt palatable fruit of the country.

The Plantain, is a fruit ſtill more wholeſome, and more univerſally uſed than the pine apple, both by

* Bromelia Ananas, Rumph. Amboin. The name *ananas* is a corruption of the Brazilian *nana*, by the Portugueſe.

Europeans and natives. It is cultivated around the meanest cottages all over the country: but in the upper provinces this fruit does not arrive at the same perfection as in Bengal. It is a biennial plant, springing from a perennial root; during the first year it acquires its growth, and in the second it perfects its fruit. From the rapidity of growth, and the immense quantity of food which it produces, it may justly be ranked among the most useful plants: the leaves are a yard and a half in length, by eighteen inches in breadth; and serve as wrappers for all kinds of goods, and for plates to the natives. The plant becomes in the stalk, as thick as a man's thigh; and from a single stem, bears a bunch of fruit in quantity sometimes equal to two English stones weight.

It is happy for the natives, that they have not attempted to convert this weighty saccharine produce into a fermented liquor, which it would certainly yield in great abundance, but which would by no means be equally innocent in its effects, as in that state in which nature affords it.

Next to these fruits the Mangos are ranked by the natives. Nothing in nature presents a richer prospect, than a grove of mangos, at the season of that fruit: the tallness, and verdure of the trees, the dark hue of their leaves, variegated by all the different tints of the plentiful crop; the number of birds of the most brilliant plumage, hopping among the branches, as if exulting in the plenty with which they are surrounded,

ſurrounded, forms a ſcene which ſeldom fails to attract the admiration of an European when he firſt travels through this country.

The mango is not only a wholeſome fruit, but extremely nutritive; and it is generally ate in the greateſt quantity, and with moſt avidity by ſuch as have reſided long in the country. To a ſtranger its taſte ſomewhat reſembles turpentine; to which peculiarity cuſtom ſoon reconciles him.

The planting of a mango grove, here called a *Tope*, is executed with great care; it forms one of their important religious duties; and this is one happy inſtance in which the dictates of a complicated ſuperſtition coincides with thoſe of morality. This majeſtic fruit-tree is the Rhamnus Mangifera Indica of Rumphius; It aſſumes the appearance of an oak, but is more grateful here, ſince it affords a thicker ſhade. The fruit is oblong, about the ſize of a gooſe's egg, and, when ripe, is of a red and yellow colour. It is made into various prepared diſhes; as a pickle it is frequently ſent to Europe; in India it is reckoned the moſt delicious of all fruit, and is preferred in the hot ſeaſon, to any other.

The Pomelo ſucceeds the mango as the ſeaſon advances; it is of ſuperior ſize; almoſt equally beautiful; but falls far ſhort in its richneſs of taſte and nutritive qualities. This fruit contains a large quantity of a very pleaſant ſubacid juice, which, during the heat

heat of the day, has a cooling effect without injuring the ſtomach, though taken almoſt in any quantity. These fruits make a frequent and very reſpectable appearance at our deſerts, and when it is ſaid that they are perfectly innocent, much more is affirmed than can juſtly be done of many a fine object which here ſtimulate the avidity of the epicure.

The Water-melon grows here to a ſize which renders it peculiarly ornamental to a deſert table; it is, however, neither a rich nor a nutritious fruit; but may be ate with ſafety. When to the foregoing the Pomegranate, Cuſtard-apple, Guava, Peach, and an endleſs variety of other productions of the orchard are added, the table is completely covered, and ſeems to groan under the profuſe load with which it is attired. The quantity both of meat and fruit, produced on the tables at Calcutta, rather reſembles a fortnight's ſupply of proviſions than a meal for the company—A circumſtance which, however ſuitable to our notions of ſplendour, certainly diminiſhes the elegance of our entertainments: In England, if I miſtake not, it would be regarded as a characteriſtic of vulgarity.

The cumberſome variety diſplayed at European tables ſeems a compliance with the ideas of the natives regarding hoſpitality. The number of diſhes and fruits at the imperial table, mentioned in the Ayeen Acbery, exceeds all belief. In deſcribing the private life of Acber, the moſt abſtemious of all men, we are ſurpriſed to meet with ſuch a tedious and laboured

boured detail of culinary regulations; every branch of which ſeems to have been under the management of a particular corps enumerated on the eſtabliſhment of the army.

By ſuch ſplendid feſtivity are the evenings of the Europeans in Bengal exhilarated, after the laſſitude, fatigue, and debility unavoidably experienced during the day, in a climate, where the heat and moiſture are overpowering, and oppreſſive, even to the natives themſelves. It is with pleaſure, however, I can add, that exceſs and intemperance are much more ſeldom witneſſed than in Europe, and even than they were here, when the rude extravagances of ſocial intercourſe had not yet given way to more correct and elegant manners, and when perſons of higher rank, and better education, had not yet begun to make a part of every company. If Bengal, and particularly Calcutta, are deemed leſs fatal to European conſtitutions than formerly, this muſt rather be aſcribed to a reformation in the manners of the people, than any melioration of the climate. The firſt ſettlers, not only of the Engliſh, but of every other European nation, were men of bold and adventurous characters, but in general of mean birth and narrow education: for a while, till the importance of theſe poſſeſſions was better underſtood, they were followed by others of a ſimilar deſcription, whom neither experience nor reflection had taught the fatal conſequences of diſſipation in a warm climate. Whoever in theſe times, tranſgreſſes the bounds of moderation, muſt do it with

a full

a full conviction of its impropriety, as well as against the influence of example; and ought therefore to submit to receive lessons of wisdom, in the only way by which to *him*, they can be taught, by the admonitions of pain, and the dangers of disease.

THE HINDOO METHOD OF CULTIVATING THE SUGAR CANE.

. . . .

Berhampore, Oct. 1797.

DR. ROXBURGH, whofe purfuits after botanical knowledge are now fo well known, has given an ample account of this branch of Indian hufbandry; and in the diftrict where he refided little can be added to his remarks in elucidating the prefent practice.

" AMONG the natives of India, he obferves, the tranfitions from one ftage of improvement to another are fo exceedingly flow, as fcarce to deferve the name, except it be the few who have benefited by the example of Europeans. They naturally poffefs a ftrong difinclination to depart from the beaten path eftablifhed from time immemorial; however, when they fee a certain profpect of gain, with little additional trouble, they have frequently been known

to

to adopt our practices. We ourselves ought now generally to keep in view, and to instil into their minds this maxim, that every new proposition, merely on account of its novelty, must not be rejected, otherwise our knowledge would no longer be progressive, and every kind of improvement must cease.

"At a period, like the present, when the importation of East India has become so much an object of importance to Britain, in consequence of the present state of some of the best of the West India sugar islands, every enquiry that may tend to open new sources from whence that wholesome commodity may be procured, at the cheapest rate, is of national importance.

"I believe there are few districts in the Company's extensive dominions where there will not be found large tracts of land fit for the culture of the sugar cane: yet I know, from experience, the introduction of a new branch of agriculture, among the natives, to be attended with infinite trouble; therefore, where we find a province or district, in which the culture of the cane, and the working of sugar has been in practice from time immemorial, there we may expect, without much exertion, to be able to encreasé the culture, and improve, if necessary, the quality.

In the northern provinces, as well as in Bengal, Codapah, &c. large quantities of ſugar and jaggry are made; it is only in the Rajamundry and Ganjam diſtricts of theſe northern parts, where the cane is cultivated for making ſugars. I will confine my obſervations to the firſt, where I have reſided between ten and eleven years.

This branch of agriculture, in the above-mentioned Sircar, is chiefly carried on in the Peddapore, and Pettapore, along the banks of the Elyſeram river, which, though ſmall, has a conſtant flow of water in it the whole year round, ſufficiently large, not only to water the ſugar plantations during the dryeſt ſeaſons, but alſo a great variety of other productions; ſuch as paddy, ginger, turmeric, yams, chillies. This ſtream of water during the dryeſt ſeaſon, renders the lands adjoining, I preſume, more fertile than almoſt any other in India, and particularly fit for the growth of the ſugar cane.

In theſe two Zemindaries, from 350 to 700 *Viſſums*; or from 700 to 1400 acres of land, (the Viſſum being two acres,) is annually employed for rearing the ſugar cane, more or leſs, according to the demand for ſugar: for they could, and would with pleaſure, if they were certain of a market, grow and manufacture more than ten times the uſual quantity. It is very profitable; and there is abundance of very proper land; all they want is a certain market for their ſugar.

Besides the above-mentioned, a third more may be made on the Delta of the Godavery.

From the ſame ſpot they do not attempt to raiſe a ſecond crop, oftener than every third or fourth year. The cane impoveriſhes it ſo much, that it muſt reſt, or be employed during the two or three intermediate years, for the growth of ſuch plants as are found to improve the ſoil, of which the Indian farmer is a perfect judge. They find the leguminous tribe the beſt for that purpoſe.

The method of cultivating the cane, and manufacturing the ſugar by the natives, hereabouts, is like all their other works, exceedingly ſimple. The whole apparatus, a few pair of bullocks excepted, does not amount to more than fifteen or twenty pagodas: as many thouſand pounds is generally, I believe, neceſſary to ſet out the Weſt India planter.

The ſoil that ſuits the cane beſt, in this climate, is a rich vegetable earth, which, on expoſure to the air, crumbles down into a very fine mould: it is alſo neceſſary for it to be of ſuch a level, as allows it to be watered from the river, by ſimply damming it up, which almoſt the whole land adjoining to this river admits of, and yet ſo high, as to be eaſily drained during heavy rains.

Such a ſoil, and in ſuch a ſituation, having been well meliorated, by various crops of leguminous

plants,

plants, or fallowing for two or three years, is ſlightly manured, or has had cattle pent upon it. A favourite manure with the Hindoo farmer, is the rotten ſtraw of the green and black peſſalloo. During the months of April and May, it is repeatedly ſtirred with the common Hindoo plough, which ſoon brings this rich looſe ſoil into very excellent order. About the end of May or beginning of June, the rains uſually ſet in, by frequent heavy ſhowers. Now is the time to plant the cane: but ſhould the rains hold back, the prepared field is watered by flooding from the river, and when perfectly wet like ſoft mud, whether from the rain, or from the river, the cane is planted.

The method is moſt ſimple: labourers with baſkets, of the cuttings, with one or two joints each, arange themſelves along one ſide of the field; they walk ſide by ſide, in as ſtraight a line, as their eye or judgement enables them, dropping the ſets at the diſtance of about eighteen inches in the rows, and four feet aſunder from row to row: other labourers follow, and with the foot preſs the ſet about two inches into the ſoft mud-like ſoil: this with a ſweep or two with the ſole of the foot, they moſt eaſily and readily cover: nothing more is done. If the weather is moderately ſhowery, till the young ſhoots are ſome two or three inches high, the earth is then looſened a few inches around them, with a ſmall weeding iron, ſomething like a carpenter's chiſel: ſhould the ſeaſon prove dry, the field is occaſionally watered from

the river, continuing to weed, and to keep the earth loofe about the ftools.

In Auguft, two or three months from the time of planting, fmall trenches are cut through the field, at fhort diftances, and fo contrived as to drain off the water, fhould the feafon prove too wet for the canes, which is frequently the cafe, and would render their juices weak and unprofitable: the farmer, therefore, never fails to have his field plentifully and judiciouſly interfected with drains, while the cane is fmall, and before the time of the violent rains. Should the feafon prove too dry, thefe drains ferve to conduct the water from the river, through the field, and alfo to carry off what does not foak into the earth in a few hours: for, fay they, if water is permitted to remain upon the field for a greater length of time, the cane would fuffer by it, fo that they reckon thefe drains indifpenfibly neceffary; and on their being well contrived depends, in a great meafure, their future hopes of profit. Immediately after the field is trenched, the canes are all propped; this is an operation I do not remember to have feen mentioned by any writer on this fubject, and is, perhaps, peculiar to thefe parts. It is done as follows:

The canes are now about three feet high, and generally from three to fix from each fet that has taken root, and from what we may call the ftool; the lower leaves of each cane are firft carefully wrapt up round it, fo as to cover it completely in every part,

a ſmall ſtrong bamboo, eight or ten feet long, is then ſtuck into the earth in the middle of each ſtool, and the canes are tied to it: this ſecures them in an erect poſition, and gives the air free acceſs round every part. As the canes advance in ſize, they continue wrapping them round with the lower leaves, as they begin to wither, and to tie them to the prop bamboos higher up, during which time, if the weather is wet, they keep the trenches open; and if a drought prevails, they water them occaſionally from the river, cleaning and looſening the ground every five or ſix weeks. Tying the leaves ſo carefully round the cane, they ſay, prevents them from cracking and ſplitting with the ſun, helps to render the juice richer, and prevents their branching out round the ſides: it is certain that you never ſee a branchy cane here.

In January and February, the canes are ready to cut, which is about nine months from the time of planting; of courſe I need not deſcribe it. Their height when ſtanding in the field, will now be from eight to ten feet, foliage included; and the naked cane from an inch to an inch and a quarter in diameter.

A mill or two, or even more, according to the ſize of the field, is erected, when wanted, in the open air; generally under the ſhade of large mango trees, of which there are great abundance hereabouts. The mill is ſmall; exceedingly ſimple, and at the ſame

ſame time efficacious. The juice as faſt as expreſſed, is received into common earthen pots, ſtrained and put into boilers, which are, in general, of an oval form, compoſed of ill made thick plates, of country iron, rivetted.

These boilers hold from eighty to one hundred gallons; in each they put from twenty-four to thirty gallons of the ſtrained juice: the boiler is placed over a draft furnace, which makes the fire burn with great violence, being ſupplied with a ſtrong draught of air through a large ſubterranean paſſage, which alſo ſerves for an aſh-pit. At firſt the fire is moderate, but as the ſcum is taken off, a point they are not very nice about in theſe parts, as they look to quantity more than quality, the fire is by degrees increaſed, ſo as to make the liquor boil very ſmartly; nothing whatever is added to make the ſcum to riſe, or the ſugar to train, except when the planter wants a ſmall quantity for his own or a friend's uſe; in this caſe he adds ten or twelve pints of ſweet milk to every twenty-four or thirty gallons, or each boiler of juice, which no doubt improves the quality of the ſugar: the ſcum with this addition, comes up more abundantly, and is more carefully removed.

The liquor is never here removed into a ſecond boiler, but is in the ſame boiled down to a proper conſiſtence, which they gueſs by the eye, and by the touch: the fire is then withdrawn, and in the ſame veſſel allowed to cool a little. When it becomes pretty

pretty thick, they ſtir it about with ſtirring ſticks, till it begins to take the form of ſugar; it is then taken out and put upon mats, made of the leaves of the palmira tree, (*Boraſſus flabelliformis*), when the ſtirring is continued till it is cold: it is then put up in pots, baſkets, &c. till a merchant appears to buy it.

The Hindoo name of this ſugar is Panſadurry; its colour is fairer than moſt of the raw ſugars made in our Weſt India iſlands; but it is of a clammy unctuous nature, abſorbing much moiſture in wet weather, ſometimes ſufficient to melt a great deal of it, if not carefully ſtowed in ſome dry place, where ſmoke has acceſs to it.

Many of the planters prefer that ſort of ſugar which they call Bellum, and Europeans Jagary; becauſe it keeps well during the wet weather if laid up in a dry place. It generally bears a lower price; yet, they ſay, this diſadvantage is often over-balanced by their being able to keep it with only a trifling waſtage, till a market occurs, for the farmer has often to wait for a market for his ſugar; beſides canes of inferior quality anſwer for jagary, when unfit for ſugar.

The proceſs for making jagary differs from thoſe above deſcribed, in having a quantity of quick lime thrown into the boiler with the cane juice, about a ſpoonful and a half for every ſix or ſeven gallons of

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the juice. Here they do not remove the ſcum, but let it mix with the liquor; and when of a proper conſiſtence, about four or five ounces of Gengeley (oil of Seſamum orientale), are added to each boiler of liquor, now ready to be removed from the fire; theſe are well mixed, and then poured into ſhallow pits dug in the ground. They are generally about three feet long, and a half broad, and three inches deep, with a mat ſpread at the bottom, which is ſlightly ſtrewed with quick lime. In a ſhort time the liquor incorporates into a thick ſolid maſs; theſe large cakes, they wrap up in dry leaves, and lay by for ſale.

THEIR jagary is of a darker colour, than the ſugar, and contains more impurities, owing to the careleſs manner they prepare it, by allowing all the ſcum to incorporate with the liquor.

THE half viſſum, or one acre of ſugar cane, in a tolerable ſeaſon, yields about ten candy of ſugar, or rather more, if made into jagary: each candy weighs about 500 lb. and is worth on the ſpot from ſixteen to twenty-four rupees. In the Weſt Indies, ſo far as my information goes, the cane yields from fourteen to twenty hundred weight of their raw ſugar, worth on the iſland about 20l. of their currency. Here the produce is more than double; but on account of its inferior quality, and the low price it bears on the ſpot, the produce does not yield a great deal more money than in the Weſt Indies. However, as the la-

labour is incomparably cheaper, the Indian planter muſt make much larger profits.

The ſituation of all the lands hereabouts is exactly alike; being in the middle of an extenſive plain adjoining the river: the ſoil in all is alſo much alike, ſo that the produce is nearly equal in all, when no unfavourable circumſtances happen. The ſame reſult is further eſtabliſhed by the quantity of ſugar a meaſure of juice will yield. Here it is almoſt always, except in a very rainy ſeaſon, or in lodged or wormy canes, about one ſixth part; or ſix pounds of juice yield one pound of ſugar. In Jamaica, Mr Beckford ſays, that on an average eighteen hundred gallons of juice may be reckoned to yield an hogſhead of ſugar, or ſixteen hundred weight, that is, one of ſugar to eight of juice. This proves our juice to be one fourth richer than theirs.

From the above calculation, it is evident that all the lands in this neighbourhood are better adapted to this culture than the lands of Jamaica; for here they not only yield a larger crop of canes, but the juice is alſo richer: and were our planters here to bring the molaſſes into account, employed in the Weſt Indies for the diſtillation of rum, their profits would be ſtill greater. At preſent this refuſe is given to cattle, or carried away by the labourers for whatever they think proper. It is thus productive of more real benefit, than if converted into ardent ſpirits. The natives in other parts of India are, how-

ever, well acquainted with the method of making both rum and arrack, nor have they learned this pernicious proceſs from Europeans, as ſome have ſuppoſed.

In this country the canes, while growing, are ſubject to fewer accidents than in the Weſt Indies. I will mention them briefly:

1. A very hot ſeaſon is the worſt; it injures the canes greatly, rendering them of a reddiſh colour, yielding a poor unprofitable juice: here they reckon the ſmall, heavy, pale yellow cane the beſt.

2. Storms, unleſs they are very violent, do no great harm, becauſe the canes are propped; however, if they are once laid down, they become branchy and thin, yielding a poor, watery juice, and to this they are ſometimes liable.

3. The worm is another evil which generally viſits them every few years: a beetle depoſits its egg in the young cane; the grubs of theſe remain in the plant, living on its medullary parts, till they are metamorphoſed into the pupa ſtate. Sometimes this evil is ſo great as to injure a ſixth or an eighth part of a field; but what is worſe, the diſeaſe is commonly general where it happens, few fields eſcaping.

4. The

4. THE flower is the laſt accident they reckon upon; although it ſcarcely deſerves the name; for it rarely happens, and never but to a very ſmall portion of ſome few fields: Thoſe canes that flower have very little juice left; and it is by no means ſo ſweet as the reſt.

THE lands occupied with the ſugar cane in the Zemindaries of Peddapore, and Pettapore, excluſive of thoſe iſlands formed by the mouths of the Godavery, amount to five hundred and fifty viſſums, or eleven hundred acres, and their annual produce is forty-four hundred weight per acre: their whole produce will therefore be twenty-ſeven hundred hogſheads of eighteen hundred weight each, or about one fourth part of the produce of the iſland of Jamaica. It is acknowledged by all, that this quantity might be increaſed to any extent, with advantage to the zemindar, the farmer, and government. This obſervation applies with double force to the upper provinces on the Ganges, as far as Rohilcund, where the ſugar lands are of indefinite extent; and where with a culture infinitely leſs perfect than that above deſcribed, great quantities of ſugar and jagary are already made by the natives. All that ſeems neceſſary in theſe immenſe tracts, is to open a market to the Ryut, and ſecure to him a ſtrict agreement to his leaſe with the Zemindar.

TRANSGRESSIONS in this point are the great bar to Indian huſbandry; for in a good ſeaſon the Zemin- dar

dar raiſes his demands, and makes the farmers of all denominations pay probably a fourth more than the rent agreed on. Cuſtom has rendered this iniquity common, and the farmer has no idea of obtaining redreſs of an evil, which to him appears as irremediable as the ravages of the elements.

Berhampore, Oct. 1797.

Much order or arrangement cannot be expected in treating a subject, which you are compelled to examine, not methodically, but by piece-meal, as opportunity offers. You have not the choice what subjects you are to enquire into this season, or what to investigate the next; on the contrary, if examination is delayed, while you are on the spot, the opportunity is perhaps for ever lost; and the next person you apply to for information, may, perhaps, prove more ignorant than you are yourself.

In passing through these provinces with the army, during a period of five years, I have endeavoured, as much as possible, to connect together whatever observations I could make, relating to the rural economy of the farmer, and produce of the soil. Without shelter

ſhelter or a fixed reſidence, this could not always be effected.—A palankeen and boat, or even a bungalow in military cantonments, is not a ſituation favourable to an elegant arrangement of your ſubject, or much poliſh of ſtile in treating it.

In this diſtrict, we have firſt to notice the Culture of Potatoes, which has been introduced into Bengal; and apparently with the moſt beneficial effect: It is a comfortable circumſtance, that ſuperſtition in Hindoſtan, all-powerful as it is, does not ſhut up every avenue to improvement, or preclude the people from every advantage to be derived from the ſuperior attainments of Europeans, in induſtry, art, and ſcience. No prejudice prevents the Hindoo from the culture and uſe of the potatoe: the moſt uſeful and nutritive of all vegetables in every country where the growing of it is fully underſtood. If the natives here have hitherto derived but ſmall benefit from this plant, it is becauſe the culture has not become univerſal, nor has the method of preſerving it been ſo much attended to as in Europe.

The ſoil of Bengal, and the long continuance of dry weather, may, perhaps, prevent the growth of the potatoe to the extent neceſſary for the food of the common people.—In that caſe, the good effects of its introduction may not be ſo generally felt as they have been in Europe.

The

The quantity, however, procured by Europeans, almost at every season of the year, clearly shows, that these obstacles are not altogether insuperable. The potatoe, at present almost universally makes a dish at European tables: it is well dressed, and little inferior to what we have in England: in size, indeed, it is smaller, and the crop is less abundant; hence, in the Bazar, rice is, in general, a cheaper food. The natives show a willingness to use it on all occasions, where it can be as easily procured, as other food: and there remains not a doubt, if ever the potatoe shall become cheaper than the rice, that it will be generally preferred.

A DRY season is unfavourable to the rice crop; but is certainly the best for this vegetable: it would appear, then, that nature points out the one crop as a substitute, when the other fails. In order to second her views, however, a certain quantity of land in every farm should be planted with the potatoe; for nothing short of this precaution will ever secure an adequate support during a failure of the usual crop to so numerous a people, and so improvident as the Hindoos. The encouragement, and sometimes the interference, of government might be necessary, at first, to establish the practice: but if it once were introduced, the tenaciousness of the Hindoos to their ordinary routine of culture, would prove a full security for its preservation. Some years ago, a gentleman distributed two boat-loads as seed to the natives in the neighbourhood

bourhood of Cawnpore, and the crop has gradually increaſed ever ſince.

The abatements of rent unavoidable in years of ſcarcity, and the no leſs inevitable expence of purchaſing rice, and ſelling it at a low price to preſerve the lives of the poor, fall ſo heavily upon government, that the introduction of the potatoe into every farm, by the interference of authority, ſeems to be equally a dictate of economy and prudence, as of common humanity.

At Madras, and ſome other parts of the Coromandel coaſt, I am informed, that the benevolent exertions of ſome well diſpoſed perſons, have introduced the bread-fruit tree: if this has ſucceeded, and in ſome degree it has, it was accompliſhed by the projectors of it, on views of advantage far leſs certain or immediate, than the introduction of the potatoe.

It frequently is not the diſcoveries which yield the moſt ſubſtantial benefit to human ſociety, that make the moſt ſplendid figure in the annals of hiſtory.

The man who firſt introduced into Europe the uſe and culture of the potatoe, has conferred a real and permanent benefit upon the poor, which, in every country, comprehends nine-tenths of mankind. He has relieved the importunate calls of hunger in many a family; and in the inſide of the cottage, he has gladdened many a countenance, that, before his day, was

ſullen

ſullen with hunger, or ſhrivelled with want. This perſon, though unrecorded in the annals of Fame, ought, in ſimple juſtice, to occupy one of the firſt ſeats in her temple.—This honour is ſaid to be due to that adventurous but ill-requited ſtateſman Sir Walter Raleigh.

It would, perhaps, be too ſanguine to expect, that a vegetable, not perfectly congenial to the climate of Hindoſtan, ſhould ever be turned to ſo much account in feeding hogs, poultry, and cattle, as it is in Britain and Ireland: but if, by our example and judicious encouragement, the potatoe ſhall become of as univerſal uſe among the Hindoos, as it is in theſe countries, the Europeans of the preſent age will have the honour of making ſome atonement for the miſchiefs and devaſtations committed by their anceſtors for two centuries in America.—Amidſt ſo many changes of manners, we may at leaſt hope for a period, when virtue and humanity ſhall be as reſolute and perſevering in their aim, as avarice or cruelty.

So little attention has hitherto been paid to the melioration of the condition of the natives, that you cannot even attempt it, without incurring the ridicule of a great proportion of the Europeans in India. They tell you, that the moſt trivial cuſtoms of the people are as immutable as the laws of the Medes and Perſians; and nothing ſhort of fatuity could induce any perſon to attempt a change. This is a plauſible excuſe for the univerſal neglect of this important ſub-

ject; and is urged by ſome as a plea for the omiſſion of what conſcience tells them is a duty. Europeans, in general, viſit this country for the advancement of their own fortunes; an object which they purſue, as at firſt, from neceſſity, but afterwards, from habit. If perſonal advantage becomes the great rule of action, it is a convenient principle for many, yet, if eſtabliſhed, would vindicate every act of oppreſſion committed amongſt mankind in every age.

The uncertainty of a rice crop, as the only ſupport of a numerous people, is ſufficient of itſelf to juſtify every attempt, however unpromiſing, to introduce other ſtaple articles to come in aid of it in times of ſcarcity. A grain which depends upon the quantity of rain, and on the number of inches to which the ſtream riſes on the Ganges, experience has often proved to be an awful contingent to hang the lives of millions of our fellow-creatures on. If a ſtimulus to their indolence, or even a ſmall violation of ſome of their cuſtoms, could reſcue them from the danger, the means would be as completely ſanctified by the end, as the evil would be overbalanced by the advantage.

Should the culture of the potatoe never become ſo general in Bengal, as to anſwer the intended purpoſe, its place might ſtill be ſupplied by the yam, or ſweet potatoe, a vegetable reſembling it in taſte, but far larger in ſize, and, in this country, more eaſily raiſed. It has been cultivated and uſed by the natives

to

to a certain degree, I believe from time immemorial: the cultivation of this plant to a greater extent might thwart the indolence, but could violate no religious prejudices of the Hindoo. Such precautions in his behalf are the more neceſſary; becauſe in all his conduct, he betrays a want of foreſight, and indifference to futurity, that totally diſqualify him from providing in any degree againſt famine, which has ever been the great ſcourge of India.

That the reſources promiſed by the bread-fruit tree will prove equal to what might be expected, either from the potatoe or the yam, is more than problematical. The planting of a tree, and the care of its preſervation till it become productive, there is reaſon to believe, is beyond the uſual effort of foreſight poſſeſſed by this improvident race. This neglect, however, muſt be imputed to themſelves; it cannot derogate from the honour of thoſe benevolent perſons, who have attempted to alleviate one of the moſt urgent of their diſtreſſes.

DESCRIPTION OF THE ISLAND OF COSSIMBAZAR.

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Berhampore, Oct. 1797.

You hardly any where view the cultivation and populousness of India more advantageously than in this beautiful island, which is surrounded by the Hoogly, Cossimbazar river, and the Ganges. While the Nabobs of Bengal continued independent princes, or were nominally subjected to the court of Delhi, they resided chiefly on this island, at least during the present century. At Moreshedabad, the capital, the Durbar was held, and the English resident had a kind of fortress assigned him, and his attendants, about four miles distant, near the populous village which bears the same name with the island. It is surrounded by a stone wall which still remains, and the house within affords elegant accommodations for the commercial resident of the Company.

THIS

THIS gentleman has the ſuperintendance of a conſiderable manufacture of ſilk, for which Coſſimbazar has long been famous. The place is alſo noted for its ſtockings; which are all knitted with wires, and are eſteemed the beſt in Bengal. The price is from twenty to thirty-five rupees the *corge*, which conſiſts of twenty pairs.

THIS village, according to Tavernier*, ſends abroad every year twenty two thouſand bales of ſilk, weighing each 100 lbs. of ſilk; making in all 2,200,000 pounds, of ſixteen ounces each. This is probably an exaggeration, yet the quantity of ſilk conſumed by the natives in carpets, ſattins, and other ſtuffs, muſt have been very great.

IT would certainly tend greatly to increaſe the produce of labour, were ſtocking frames introduced, and the natives taught to uſe them. Some enterpriſing European may hereafter enrich himſelf by this meaſure, and at the ſame time benefit the country. For the ſtockings manufactured after the preſent mode cannot contend with the Britiſh either in quality or price; this is ſo palpably the caſe, that the ſuperior claſſes of Europeans ſeldom wear any that are manufactured in India. Some Europeans allege that the ſtockings manufactured in India are more ſoft and elaſtic than thoſe knitted in a frame; this however is not the general opinion.

IN

* Travels in India Part. II. p. 126.

In this branch of the cotton trade, as well as fuſtians, and many articles of the thicker kind, the natives of Bengal are already completely outdone by their rivals in Britain, though only in the infancy of their career. Some perſons here, of no inferior underſtanding, allege that the ſame thing will ſoon happen in every article whatever manufactured of cotton; but by the major part this is regarded as a ſort of rebellion againſt antient opinions, which nothing but an overweening conceit of our own ingenuity could ſuggeſt.

The fact as it ſtands at preſent, undeniably is, that the retail price of many articles in the cotton trade, is higher in Calcutta than at either Glaſgow or Mancheſter: and the boaſt of the manufacturers of theſe towns, that they will ſoon be able to ſell their goods in Bengal, is therefore not altogether void of plauſibility.

There are many cauſes which may long prevent any rivalſhip of the Indian fineſt muſlins. The low price of labour, and the extreme delicacy of touch, which the ſlender Hindoo obtains, by means of his temperate habits, are among the principal. The fineſt muſlins are not now manufactured: when Ali Beg the ambaſſador from Perſia returned from India, he preſented Shah Seffi with a cocoa nut ſet with pearls, which had incloſed in it a turban of ſixty cubits of muſlin ſo fine that the cloth could ſcarcely be felt by the hand *.

The

* Tavernier's Travels in India.

The unhealthy ſtate of the adjoining towns of Moreſhedabad, Calcapore, and Coſſimbazar, has of late been ſo alarming, that an enquiry was made into its cauſe by ſome medical gentleman on the ſpot. Among the natives, confined and damp huts, bad water, and defective clothing, certainly contribute to the malignancy of the fever and dyſentery, by which ſo many hundreds of the poorer ſort are ſwept away every autumn.

Europeans reſiding in theſe towns are by no means equally ſubject to theſe diſorders. The Company has erected in their vicinity a regular cantonment capable of lodging two thouſand European ſoldiers; which for ſpacioufneſs and elegance, are unequalled by any buildings of the ſame kind in Europe. The different erections of the Company for the accommodation of their troops, have coſt ſeveral millions, and may be regarded as ſplendid inſtances of their economical principles giving way to the comfort of their army. The ſums thus expended, laid out at the compound intereſt of this country would, at a determinate period not very remote, have equalled the national debt.

About twenty miles ſouth of Coſſimbazar lie the celebrated plains of Plaſſey, where Lord Clive at once revenged the cruelty of the Nabob Suraja Dowlah, and eſtabliſhed the Britiſh power in Bengal. At this delightful ſpot the prince had an elegant villa, where he retired to enjoy the pleaſures of the

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chace. Woods and jungle then covered thoſe plains which are now beautified with rich crops of cotton and rice; and the tiger has been compelled to retire from the approach of the huſbandman, and to make room for the acquiſition of his induſtry. The princes of Hindoſtan in many points ſeem to reſemble the feudal monarchs in Europe: they are, however, more excuſable in devoting a part of their territory to the diverſion of hunting; the game is much more abundant, and the ſport afforded by the boar, the buffalo, or the tiger, is certainly more manly and intereſting than the purſuit of the fox, or timid hare: yet for theſe, many thouſand acres were laid waſte in every country in Europe, by our ſemibarbarous anceſtors.

Of the inferior kinds of game, the iſland of Coſſimbazar, as indeed every part of India, is full: the hare, the deer, the partridge, and quail, with a vaſt number of birds far ſuperior in beauty and variety to thoſe of Europe, are found all along the banks of the Ganges. What is more remarkable, the aquatic birds of the colder climates are alſo abundant; ſuch as the gooſe, duck, pigeon, and ſnipe. At the ſlow rate you are obliged to travel in a budgerrow, you may during the cold ſeaſon, have your table plentifully ſupplied each day with the produce of your own labours, though not an expert ſportſman.

FISH

Fish afford another ſupply for the table almoſt always attainable on the Ganges. They are here of many different kinds, and among freſh water fiſhes they certainly may be deemed very palatable as well as wholeſome. Their plenty at ſome ſeaſons is ſo great that they become the ordinary food of the pooreſt of the natives, who are ſaid to incur diſeaſes from too liberal indulgence. The ſmalleſt in ſize, ſome of which appear to be the fry of larger kinds, are all equally acceptable in a Currie, that ſtanding diſh in every native family. What is called the *cook-up*, in the jargon of the country, is often larger than a ſalmon; and the number taken in nets is often very great. The mango fiſh, ſo called from the fruit, which comes then in ſeaſon, are the favourite diſh at every European table during two months, while they are in roe, for they are then filled with a large roe or ſmelt, which the connoiſſeurs reckon a delicate morſel.

For ſeveral hundred miles the alligator and porpuſes are ſeen tumbling in this large ſtream: and after the numbers that muſt be daily devoured by theſe voracious plunderers of the inferior tribes, a ſufficient quantity ſtill remains to reward the labours of the fiſhermen, who continually ply the river, either for the ſupply of the market, or of their own families. The alligator of the Ganges is from twenty to twenty-five feet long when at its full ſize. I have not obſerved that the populous iſland of Coſſimbazar has attracted this hideous animal in greater

numbers than is found in other parts of the river: it is allowed, however, that he is extremely voracious of human food; a repaſt to which he can be no ſtranger, from the number of dead bodies continually thrown into the river. A ſingle fiſherman in his canoe is not a match for the alligator: he flies at his approach: but as often as the monſter is ſeen by a company in the ſame boat, he, in his turn, is obliged to retreat. The gurreal is a ſpecies of the crocodile ſtill more hideous than the alligator.

So much has nature done for the fertile iſland of Coſſimbazar; and for once the natives have had ſpirit to ſecond her views. The ſoil of this diſtrict is not only rich, but it is the beſt cultivated in this country: crops of every ſort are luxuriant; and Coſſimbazar has obtained the name of the garden of Bengal, which itſelf has long had the appellation of the garden of India.

OF

OF TRAVELLING IN A BUDGERROW ON THE GREAT RIVER,

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Ganges, Dec. 1798.

In this part of India journies are moſt frequently performed by water; and by the aſſiſtance of the ſame claſs of boat-men that are employed in the conveyance of goods.

The veſſels uſed by Europeans for this purpoſe, are conſtructed with an air of elegance ſeldom aimed at in any other part of the world. If the affectation of ſplendour is generally the characteriſtic of men of low birth on the ſudden attainment of wealth in every quarter, it is not ſurpriſing that it ſhould ſometimes appear here: it is natural to conceal a humble origin by pompous manners and a ſhow of profuſion.

The travelling Budgerrow uſed on the Ganges is an inſtance of this affectation, the more excuſeable

here,

where every convenience is neceſſary to ſupport the effects of the climate. Theſe veſſels are conſtructed with a large airy cabbin, ſurrounded with venetian and canvas blinds: in each there isa ſuite of two or three apartments, which, with additional boats for baggage and ſervants, can accommodate a ſmall family very comfortably for a conſiderable time.

This is indeed neceſſary, for ſlowneſs is the great objection to this mode of travelling: three months and a half are allowed a Budgerrow to travel from the preſidency to the higher ſtations; and this allowance, large as it may appear, has ſometimes been inſufficient. The wind and the ſtrong current of the Ganges at certain ſeaſons, are inſurmountable obſtacles to expedition in travelling up the country; and if their time is limited, another mode of conveyance muſt be adopted.

Hardly any part of the food of a Hindoo is common to him with an European: almoſt every article, therefore, muſt be provided before your journey commences. The Bazars furniſh kids, fowls, eggs, rice, and milk; but it is not ſafe to truſt that your ſupplies will be procured even where theſe articles are to be found. In many places the natives poſitively refuſe to ſell their goods to an European; and their reluctance is ſo remarkable, that I have ſeen a whole village ſhut up their ſhops, and the owners conceal themſelves, on a report of a ſtranger coming to purchaſe from them. Wherever men find it their inter-

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eft, they will, in general, be willing to fell: fome violence or unfair dealing muft have been the caufe of this fhynefs of the Hindoos. Had they never been annoyed or defrauded, it is probable they never would have refufed to fell their commodities.

On a journey where the fcenery is circumfcribed, and the objects trivial or common, the exercife of patience, during a flow progrefs, may be difficult; but, on firft travelling on the Ganges, that mind muft be ftrangely conftructed which cannot exercife this virtue. The firft view prefented to a ftranger of this grand and venerable ftream, the conftant diftributor of comfort to millions of his fellow-creatures, excufes with him, the fimple natives for that excefs of veneration with which they regard it. All that you have heard of the munificence of the Nile, or of the bleffings conferred on America, by the large ftreams that pervade that country, is far outdone by this great parent of rivers.

It affords abundance of drink to the inhabitants of a country which would otherwife be parched in the hot feafon; the air from it cools and refrefhes the country: during the rains, it overflows immenfe tracts, which are fertilized by its water, while it enables their cultivators to convey to market part of their produce. It thus adminifters by far the greater part of his comforts to the Hindoo when living, and furnifhes a facred receptacle for his body at his death.

The natives of Hindoſtan have, for theſe reaſons, venerated the Ganges to idolatry: A mixture of emotion, of ſurprize, pity, and regret, ariſes in the breaſt of an European, when he firſt beholds the aged Hindoos, with their white beards, ſtepping down its bank, to pay their evening devotions, and to bathe themſelves in this hallowed river.

This cuſtom, derived at firſt from ſimple grati-tude, forms now a ſtated portion of that immenſe maſs of ſuperſtition which prieſtcraft has entailed on the ignorant multitude.

From whatever ſource this ceremony at firſt aroſe, it is religiouſly and almoſt univerſally obſerved, not merely by thoſe in the vicinity of the great river and its ſacred branches, but alſo by many at a great diſtance, who, at certain ſeaſons, either reſort to its banks, or ſend for a portion of the purifying water for domeſtic ablution and other purpoſes.

The ſpiritual benefits that are ſuppoſed to be con-veyed by the contact of this holy ſtream, I have not learned; its moral and phyſical effects are ſufficiently apparent. In a hot climate cleanlineſs is of the ut-moſt importance. Many of the natives anoint them-ſelves with oil; and were this allowed to accumulate with duſt and perſpiration, they would ſoon become noiſome to each other, and would certainly fall ſacri-fices to putrid diſeaſes.

In

In this view, it is not unpleafing to obferve the inhabitants of every village, as you pafs along the river, repairing each morning and evening, to perform in the ftream this neceffary luftration.

While the old men are bufy at prayers and gefticulations, the women and children are equally anxious to purify their fkin. In doing this they do not truft entirely to the virtues of the water; but take up fand and mud from the bottom, with which they rub their bodies as conftantly as if they were in the act of clearing metal.

It is on thefe occafions that the women clear up their domeftic utenfils, which generally confift only of a few earthen and brazen pots: the latter they carry home as bright as gold, fupported over the haunch by one arm, on the fhoulder, or the head, according to the caft. This ceremony feems to be performed twice every day, and affords an idea of the cleanlinefs of the natives not unworthy of the imitation of thofe who deem themfelves their fuperiors.

Another circumftance which meets the eye of a traveller, not fo confiftent with our ideas of delicacy, is the promifcuous intercourfe of the fexes in thefe bathing parties. It muft be remembered, however, that the natives go into the river with the whole of their ufual drefs, and confequently have no farther inducement to privacy, than on other occafions.

Some

Some reluctance at being ſeen by ſtrangers, is plainly obſervable; and it is amuſing to remark the different degrees of confidence produced by age, marriage, perſonal attractions, or other circumſtances. Some conceal themſelves from the eye of Europeans, by remaining up to the chin in the water till they paſs; others by getting behind ſcreens and pailings erected for the purpoſe; behind theſe retreats they are ſeen ſpying the traveller with all the eagerneſs of curioſity that has been deemed peculiar to the ſex: *Naturam licet furca expellas tamen uſque recurret.*

One melancholy circumſtance cannot fail to obtrude itſelf upon the mind of him who travels on the branches of this river. From what cauſe does ſo great a portion of this fine country lie in all the wildneſs of ſavage nature? Lord Cornwallis, in a letter to the Court of Directors, declares, that a great part of this country is a mere jungle; and the ſame obſervation muſt occur to every one who has viſited it. On ſome branches of the Ganges you may travel for nearly a day without ſeeing one cultivated field, a houſe, or even a tree. We cannot follow out this idea, without recurring to ſome period of public rapine and devaſtation, of which it is evidently the conſequence. Three Mahratta armies plundered this country for ten years previous to its coming under our protection; and the old men ſpeak of it with horror.

It is true, that were we to judge by the number of boats plying upon the river, or the number of people who, in ſome parts, reſort to its banks, we might form no unfavourable idea of the population of theſe provinces. But the river is here the great highway leading to the capital from all the upper diſtricts; and it is reſorted to not merely for the purpoſe of travelling, but for commerce and religion: and if theſe circumſtances are taken into account, the number of people upon the river falls ſhort of what might be expected in a populous country. In China, the carrying trade and fiſhing, bring much greater numbers to the rivers of that country, than are any where ſeen upon the Ganges *.

The natives of Hindoſtan have probably never been bleſt with a good government: always the victims of the rapacity or ambition of ſome mercileſs tyrant, the gifts of nature ſeem to have been laviſhed upon them to no purpoſe, unleſs to prove the inefficacy of every other advantage, when counteracted by a blind and ſanguinary deſpotiſm.

The Britiſh power has now obtained a more decided aſcendency among them, than has ever been poſſeſſed by any nation: and the effect of this has been the prevention of internal war, by

* Anderſon's account of the Embaſſy, paſſim.

which many of the evils of bad government will in future be done away. The time is approaching, when the exertions of a moderate government will be felt even in the midſt of the regions of deſpotiſm ; a period when Aſia, which never framed a rational government for itſelf, will receive one from Europe ; and when thoſe arts, which origiginated in this country, and that knowledge, which it once communicated, ſhall again return with increaſe into its boſom.

SUCH a tendency is diſcernible in the Britiſh goverment of India ; not from any chimerical notions of liberty being likely to prevail here ; ſuch a circumſtance is happily beyond the reach of probability. Here the metaphyſical jargon of the modern ſchool can never be made intelligible. The conjecture is hazarded on the moderation, humanity, and good ſenſe which ſtill diſtinguiſhes the Britiſh character in this part of the world.

HAPPILY ſuch ſuppoſitions are not merely the offspring of good nature : they have been for ſome years paſt realized, at leaſt in part. None of thoſe irregularities have of late appeared, either in the civil or military government of India, which were wont to characterize former adminiſtrations. That government is now an object of ambition to the firſt characters in the nation : men of the higheſt rank, and of the moſt independent fortunes, may here

here obtain honour, by being uſeful to their coun-try: an acquiſition which cannot be attained in the crooked paths of corruption, or by the more auda-cious acts of rapacity.

THE

THE ROADS, AND THE MANNER OF TRAVELLING BY LAND.

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Plaſſey, Dec. 1797.

I ENDEAVOURED lately to give ſome idea of the inland navigation of this country, a part of the world ſo abundantly ſupplied by natural reſources, as to ſuperſede, in a great meaſure, the contrivance of art. In a province ſo level as Bengal, canals, were they neceſſary, could be furniſhed almoſt as eaſily as roads: for the latter there is hardly any materials, except pounded brick; which is generally overlaid upon a ſtratum of the ſame materials, in their unbroken ſtate. In the upper country there are, indeed, quarries of free-ſtone, and whin rock, but the carriage of theſe materials to ſo great a diſtance, implies an exertion and an expence far exceeding the preſent circumſtances of the government.

ONE

One of the Emperors of the Mahommedan race, planted trees, dug wells, and built inns at convenient ſtages from his capital, to the diſtant parts of his empire. Some remains of his princely undertakings are ſtill to be diſcerned in thoſe Choultries and Serais, whoſe naked walls or ruinous veſtiges are ſtill here and there to be ſeen.

Caravanserais in the eaſt never implied the idea which we attach to an inn: they conſiſt merely of an empty houſe, where you are permitted to lodge, and are endowed with a certain ſum to keep them in repair. All the accommodation in them is of the traveller's own procuring: his bed, proviſions, and kitchen utenſils are carried along with him; and in a country ſo much infeſted by the tiger, and by wandering robbers, even the protection of a houſe is deemed no ſmall comfort. Forſter is the only European who contented himſelf with the ſimple fare of the native caravanſerais. When this inn is not to be had, the diſconſolate traveller ſhelters himſelf from the noon-day ſun under the ſhade of ſome tree; under the ſame roof he alſo turns aſide to avoid thoſe ſudden and tremendous ſtorms of rain, hail, and thunder, which prevail during the hot months of April and May.

The Hon. Company, ſince their attainment of ſuch a vaſt territorial poſſeſſion, have completed a road from their capital to Benares and Chunar. This has been done principally with a view of expediting

their

their military movements; but is at the ſame time a great convenience to ſuch as travel by land to the upper ſtations. Some of the more remote of theſe are above one thouſand miles from Calcutta, and may be travelled to in nine or ten days. To accompliſh this, however, bearers muſt be regularly laid at the different ſtages, ſo that no delay may be occaſioned by providing them. This precaution is always neceſſary before you undertake any journey whatever; and it is done with great facility, as the terms are generally ſettled by government, and the number of bearers is always greater than can regularly find employment.

It is ſurpriſing with what eaſe a journey of thirty or forty miles is performed here: in the hot ſeaſon you generally ſet out in the evening, and arrive before breakfaſt. If your time do not permit you to reſt, the route is continued during the whole day, at about four miles an hour; nor is this inſupportable; as you may ſleep with ſome comfort in ſuch conveyance.

The number of bearers, coolies, and other ſervants neceſſary on a journey in this country, is not eaſily credited by a European. Their number is generally equal, ſometimes greater than that of the miles you travel: hence, in performing the journey juſt mentioned, in the ſpecified time, the ſervice of more than a thouſand natives is required. Thus the cheapneſs of labour in Bengal, is almoſt

in

in every inſtance overbalanced by the number of hands, which it is abſolutely neceſſary to employ. In *England, the ſame diſtance may be travelled* in a coach and ſix, with a ſplendid retinue, in a ſhorter ſpace, and at a ſmaller charge.

SHORTER excurſions are performed on horſeback, or in a carriage: this muſt, however, be done either before ſun-riſe, or in the evening. Heat, combined with moiſture, as it is in this country, has effects irreſiſtibly deſtructive to an European conſtitution.

THE horſes uſed by Europeans in Bengal, are either of Perſian or Arabian extraction; and conſequently ſell at a high price. A good horſe of this breed cannot be had under eight hundred rupees, and from that ſum the price riſes ſometimes to two thouſand. They are well formed, light, and ſpirited; but ſeem not in this climate to be capable of great fatigue. Their temper ſeems alſo to be injured, as well as the hardineſs of their conſtitution, by change of country: ſome of them, from being tame and gentle, become ſo remarkably vicious as to prove totally unfit for uſe.

IN the Ayeen Acbery ſix different kinds of horſes are ſpecified, that compriſed the immenſe body of Mogul cavalry: in each claſs, the pay correſponded to the ſuppoſed qualities of the horſe, and the Perſian horſe ſtands in the firſt claſs; and the pay of a ſingle trooper is ſtated at ninety rupees per month, while

while that of the Tazy and Jungley are as low as fifteen and ten rupees. Theſe laſt are the country-bred horſes, and were never in high eſtimation, for immenſe numbers were then, and ſtill continue to be imported from Cabul and Candahar.

The native Bengalee horſe is thin, ill ſhaped, and every way a contemptible animal: no doubt the meagre ſtate in which they are kept adds greatly to their deformity. In their beſt ſtate they never equal the Welſh or Highland poney, either in figure or uſefulneſs. Mounted by the poorer natives, and woefully compariſoned as they commonly are, they ſeem only fit for the retinue of Don Quixote. As in this country the uſe of horſes in a teem is totally unknown, the worthleſſneſs of the horſe is little to be regretted; but it is ſingular to obſerve that they employ the oxen for all the purpoſes of agriculture, in a part of the world where his fleſh is not an article of food. One would ſuppoſe that in Europe, where the carcaſe is turned to ſuch good account, after their labour is over, that the balance would be entirely in their favour; yet in the late agricultural reports, the reverſe ſeems eſtabliſhed. Cuſtom, perhaps, has had more influence than reaſon in determining this matter in every quarter of the globe.

The Secretary and Surveyor to the Board of Agriculture, whoſe knowledge of huſbandry is at once accurate and extenſive, have both, if I miſtake not, ſtrongly recommended oxen, in certain circum-

ſtances,

ſtances, for the common labours of huſbandry ; and they have been employed on his Majeſty's extenſive farms near Windſor. What confirmation does this practice receive, when we conſider that in the vaſt and populous peninſula of Hindoſtan, they only uſe bullocks, where their fleſh brings almoſt nothing as an article of food, and their hide very little either as a material of manufactures, or an article of commerce !

PERHAPS no writers have contributed more largely, than theſe two gentlemen, to diffuſe among farmers a practical knowledge of their profeſſion. Had providence afforded either of them an opportunity of travelling over this country, their remarks would probably have conveyed more uſeful information, on the ſtate of its rural economy, than all that has yet been written : and that this has not been the caſe, is the more to be regretted, becauſe, if ever a judicious and equitable ſyſtem of regulations, for the government of this country, falls to its lot, it muſt be framed in Europe, and from thence alſo muſt proceed a controul over its execution.

NOTHING can exceed the general indifference, and ignorance of Europeans upon this important ſubject : they commonly embark for India at an early period of life, when they could have no knowledge of a matter ſo complex as agriculture. Their own particular profeſſion, and the unavoidable diſ-

ſipation of ſociety, prevent them ever after from turning their thoughts to it. Knowledge is, beſides, not ſo eaſily attained here, as in Britain, where the weather permits you to travel at all times, and to converſe with every claſs of people. Here an European can go abroad with ſafety only at certain ſeaſons; and though he has learned the language ſo far as to converſe on domeſtic matters, and ſuch as relate to his own profeſſion, yet a new dialect, and a new ſet of phraſes are neceſſary, to talk with a peaſant. After much exertion, expence of time, and labour, and by uſing an interpreter, you may deem yourſelf fortunate indeed, if you can procure the particulars of a farm as accurately even as thoſe given by Mr Arthur Young, after a ſhort converſation with an Engliſh farmer.

To theſe cauſes, united with that indolence and laſſitude, unavoidable in this climate, we muſt impute the ignorance which ſtill prevails in Europe, reſpecting the agriculture of the Hindoos. Europeans here do not underſtand it; and conſequently cannot communicate it to others. After remaining in Bengal for thirty years, you may meet with many who are incapable of even giving the names of the common grain, or knowing for what purpoſe it is raiſed.

OF

OF THE CART AND THE PLOUGH.

. . . .

Kissengunge, Oct. 1797.

THE cattle principally used for the teem in Bengal are bullocks. The simplicity of means employed to accomplish the end so prevalent in every operation performed by Asiatics, is nowhere more conspicuous than in the carts, harnesses, and draft-waggons of the Bengalese. The most common vehicle among the peasants is a Hackery, or two wheeled cart, drawn by two bullocks: the wheels, not three feet in diameter, are constructed in a clumsy and awkward manner: the body of the carriage consists of two bamboos, united by a few bars of the same materials; approaching each other the whole length of the machine, till they meet at a point between the necks of the cattle; where they are supported by a bar, projecting sideways over the shoulders of both. By this the poor animals are often galled in a most shocking manner:

manner: a ſuppuration frequently takes place from the friction, which is not, perhaps, perfectly cured during the whole life of the miſerable animal; for, beſides his being condemned to daily toil, he is no ſooner relieved from the yoke in the evening, than the crows ſet upon him, to gratify their voracity by renewing, or rather perpetuating his torments.

The view of a Bengalee dray-man, urging on his way-worn vehicle, is cloſely aſſociated with the idea of toil and miſery in the mind of every European; and this impreſſion is greatly ſtrengthened by the unſufferable ſtridor of a dry axle-tree continually ſcreeching with the nave of a ſtill drier wheel: nor can you by any argument, prevail upon the liſtleſs owner, to ſave his ears, his cattle, or his cart, by lubricating it with oil. Neither his induſtry, his invention, nor his purſe would admit of this—even though you could remove what is generally inſurmountable, his veneration for ancient uſage: if his forefathers drove a ſcreeching hackery and wretched cattle, poſterity will not dare to violate the ſanctity of cuſtom by departing from their example. This is one inſtance of a thouſand in which the inveterate prejudices of Aſiatics ſtand in the way of their improvement, and bid defiance equally to the exertions of the active, and the hopes of the benevolent.

Simple and inartificial as the hackery certainly is, it is the moſt common vehicle uſed by the natives in conveying bulky and heavy articles by land; it is employed



An Augree.

employed alſo by Europeans, from neceſſity, in carrying brick, mortar, and other materials for houſe-building; in a word, every job performed in Europe, by a cart, carr, or waggon, is performed here by theſe machines; and it is ſurpriſing to obſerve what aſſiduity can perform with inſtruments according to our views ſo totally contemptible. They carry building materials alſo upon ſmall aſſes, as was the practice of the Jews.

Another implement more uſeful, and, if poſſible, ſtill more humble in appearance, and awkward in its ſtructure—is the Plough. Almoſt the whole cultivation of India is carried on with an inſtrument conſiſting of two or three pieces of wood moſt awkwardly connected, anſwering the purpoſes of our plough. But the land in this part of the country is ſcratched, not tilled: a ſecond, a third, and often a fourth ſtirring, is neceſſary to give even the appearance of tilth to a field.

The ſoil of the upper provinces being light and thin, may probably yield to feeble inſtruments of huſbandry; but in Bengal, where it is deep and loamy to the depth of nine or ten feet, ſurely a more ſubſtantial tillage would be attended with advantage. During the rainy ſeaſon the lands lying under graſs, ſend up a coarſe ſpritty ſubſtance, nearly allied to what is called *bent* in ſome parts of Britain. This graſs, though extremely unfit nutriment for cattle, reſiſts the plough ſo very obſtinately, that I have frequently

quently ſeen four very powerful horſes put to a ſtand by it. What impreſſion, then, upon ſuch a ſoil, can be made by a Hindoſtanny plough, which the driver can lift with one hand to his ſhoulder, and thus carry to the field? The effect is preciſely what may be expected: you frequently ſee a field of this deſcription, after one plowing, appear as green as before; only a few ſcratches are perceptible, here and there, more reſembling the digging of a mole, than the work of a plough.

Patience, however, here, as in other matters, is the conſpicuous merit of a Bengalleſe: he perſeveres ſtirring the ſame field, a ſecond, a third, and a fourth time, till ſomething like mould appears, deep enough to cover the ſeed. This he ſoon commits to its boſom; and is ſeldom diſappointed in reaping a crop, which you would more readily conſider as the product of a good ſoil and climate, than the reward either of the huſbandman's ſkill, or his ingenuity.

As Bengal is, perhaps, more remarkably defective in its breed of cattle, than moſt other parts of India; I cannot leave this ſubject without mentioning a few other animals by which they endeavour to ſupply this want. They have a ſmall ſpecies of horſes, which, from their poor feeding, are ſtill more ugly than ſmall: theſe they employ chiefly in riding, as often as they travel from home. The accoutrements which ſupply the place of a ſaddle and bridle, are perfectly ſuitable to the appearance of the horſe and rider; but in

in no other point of view can they be recommended. Among the Ryuts, to whom this account is meant to apply, any thing like a handſome horſe is a thing of all others the moſt uncommon, except that of meeting with one in good condition. This is the more worthy of notice, as I have not obſerved any work aſſigned the horſe in this part of the country, excepting that juſt mentioned, of carrying his maſter ſuch eaſy journeys as occaſion may require: nor is this, in general, to be aſcribed to the want of paſture: the grounds may, in ſome inſtances, be overſtocked; but this is by no means univerſal. The defect muſt lie, therefore, rather in the *quality*, than the *quantity* of paſture. During the rainy ſeaſon, I apprehend that there is hardly any paſture leſs nutritive than that of the province of Bengal. That ſtrong ſprit, already mentioned, is, at that ſeaſon, the prevailing growth of the whole province. It puſhes up a ſingle ſeed ſtem, which is as hard as reeds, and is never touched by cattle ſo long as any other vegetable can be had. Other graſſes of a better quality are ſometimes intermixed with this unpalatable food; but, during the rains, are of ſo rapid a growth, that their juices muſt be thin, and ill fitted for nutrition.

A VARIETY of circumſtances concur to demonſtrate the inferior quality of the paſture of this province. No perſon ever truſts to it alone in fattening either a bullock or a ſheep. Whatever is intended for the table muſt be either kept upon dry food, or ſerved regularly with gram twice a-day. The

caſe

case is the same with Europeans who keep Arabian or Persian horses for the saddle: they are fed with the roots of the finer grasses picked, carefully dug up by a groom, and are served twice a-day with grain. The watery insipidity of tropical plants is a circumstance universally noticed by Europeans on their first arrival in the East or West Indies. Asparagus, Cauliflower, Cabbages, and all the esculent vegetables used at the table, are raised in considerable plenty: but they are comparatively tasteless, and consequently deficient in their nutritious powers.

A CERTAIN quantity of roses distilled in any part of Hindostan, will not produce nearly the same measure of rose-water or ottre. This point, once established, various effects flow from it, unfavourable to the cultivator in warm latitudes. His working cattle cannot be kept in flesh without superior trouble and expence: his beef and mutton cannot be fitted for the market unless stall-fed; and even that expence when incurred, can never secure the produce of the same quality with an European grazier. After every precaution, the beef of Ireland, though fed on grass only, is as superior to that of Bengal, as any two things of the same species can be supposed; may not this, then, be the cause why the native Bengalese horses, cows, asses and goats, are found universally so lean and miserable, when left to gather their sustenance from the pasture only? The capital, skill, and industry, of the natives, circumscribed as they are, must prove inadequate to oppose an obstacle, to agricultural

agricultural improvement ſo univerſal, and ſo powerful in its operation. Turnips, cabbages, clover, and all the articles of houſe-feeding, are the laſt, and perhaps the moſt capital attainments in Engliſh huſbandry; attainments which we, perhaps, never could have reached, had not a good market for beef, and the value of manure, compenſated in ſome meaſure for the original expence.

How then ſhall the poor Hindoo ſupport the fleſh and ſtrength of his draught cattle with artificial graſſes; while, by his religious prejudices, he is prohibited from uſing beef as an article of food, and is conſequently precluded from a market for thoſe he fattens? While the ſmall value of his produce can hardly defray the charge of the ſorry implements he already uſes, how is he to incur the ſuperior expence of better feeding? To this I know it will be ſaid, that good tillage always pays for itſelf better than bad; and that if a well-dreſſed field and rich crop, cannot defray charges, this never will be done by a wretched tillage, and worſe returns In Europe this reaſoning will in general prove ſound; but in Hindoſtan, where every circumſtance of rent, market, and price are different, it appears highly doubtful. This much is certain, that the richeſt crop of wheat ever grown in England, would not, in common ſeaſons, produce a price in Bengal equal to half the expence of culture. Engliſh huſbandry, and Aſiatic markets ſeem to me in a great meaſure incompatible.

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Berhampore, Oct. 1797.

THE cattle employed in carrying the baggage and artillery of the Hon. Company's troops, are almoſt in every reſpect different from thoſe I mentioned lately. They are well proportioned, large in ſize, in high order, and capable of great exertion. What ſhews with full evidence the inſufficiency of the common paſture in Bengal to ſupport working cattle in full condition, government allows all the cattle in the ſervice a certain portion of gram every day, beſides their field graſs; and the carcaſes of ſuch as I have ſeen, are ſatisfactory vouchers for the fidelity of its expenditure.

THESE cattle, however, are probably of the ſame breed with thoſe of the upper diſtricts: they are in general purchaſed at Purneah, and the adjacent coun-

try,

try, which is ſcarcely three hundred miles from Calcutta, around which the draught cattle are in the wretched condition already mentioned. Nothing ſurpriſed me ſo agreeably as viewing the Company's bullocks. From the univerſal complaint of the want of celerity in the movements of our army, compared with that of the country powers, I had conceived an unfavourable idea of the draught cattle attached to the Britiſh army. Even in the laſt war, till the Marquis of Cornwallis took the field, Tippoo's troops could ſpread devaſtation all around our camp, without a poſſibility of coming up with him. Had not another plan of operations been then adopted, the enemy, ſecure in the rapidity of his marches, might perhaps as before have baffled our purſuit, and continued to bid defiance to our power. This muſt have been owing to the number, and not to the ſuperior excellence of his cattle. In the midſt of his own dominions, he could command a choice of bullocks, while our cattle could not eaſily be tranſported into the Myſore; and where their loſs by the caſualties of ſervice, in a country ſo diſtant and inacceſſible, was without great efforts irreparable.

The elephants and camels attached to the Company's force, are equally ſerviceable with the oxen, and are kept in the ſame excellent condition. On the firſt day of every month, the Seapoy regiments, wherever ſtationed, turn out at day-break, with the whole baggage and cattle atrached to them. Their number and condition is then inſpected; allowances

ſtopped

ſtopped for deficiencies; and proper enquiry after the delinquency, if any of the cattle belonging to the corps are unfit for ſervice. This regulation has certainly, while the ſpirit of it is obſerved, an excellent effect: you may conjecture the nature of thoſe practices which gave birth to it: that old maxim, however, is here, perhaps, as juſt as in other inſtances; "*Ex malis moribus oriuntur bonæ leges.*"

ON the natural hiſtory of the elephant, it is to you unneceſſary that I ſhould enlarge: the uſefulneſs of that noble animal to an Aſiatic army is becoming daily better known; and of conſequence he is deemed of greater importance. His tameneſs, docility, ſagacity, and ſtrength, exceed, in many caſes, every thing that has been ſaid of him by naturaliſts, extravagantly as they ſeem to rate his qualities. When a heavy gun has ſunk the carriage ſo deeply in the mud, that almoſt any force applied in the common way of draught, would infallibly prove ineffectual; the elephant alternately raiſes the wheels with his proboſcis, ſo that the ordinary number of cattle eaſily pull it forward. Here it is art, or ſomething reſembling reaſon, that comes in aid to the unavailing efforts of mere ſtrength.

WITH all this force and ſagacity, the elephant is ſo tractable as renders him very uſeful for domeſtic purpoſes as well as war. It is common for private gentlemen to keep one or two to go a hunting, or to take an airing every morning and evening. He is

is then elegantly comparifoned with a howdah, and fo little vice or even inequality is there in his temper, that he is mounted by the moft timid even of the fair fex. Accommodated in this manner, you not only breathe a freer air, amidft fultry weather, but bid defiance to the ftratagem or malice of the tiger, buffalo, and wild boar, with which many parts of the country are infefted. Among the circumfcribed enjoyments of an European, the diverfion of hunting upon this animal ought not to be omitted. The elephant is feldom terrified at the approach of the moft ferocious animals: he is fo cool and fteady amidft the reports of mufketry, that you may take a good aim from his back. Thofe who are fond of boar and tiger hunting, are better qualified than I, to do juftice to the merits of the elephant in this particular, and to them I willingly confign the tafk of their illuftration.

But the fervice for which the elephant feems to be moft peculiarly fitted, and in which he certainly feels moft gratification, is that of accompanying the retinue of the native princes. Fond to extravagance, of fhew and magnificence, they feldom appear in public without a numerous retinue, confifting of cavalry and infantry, with horfes, palankeens, and elephants for their conveyance. Thofe deftined for the prince, or any of his favourites, are equipped with fplendid howdahs, all blazing with gold: the greater part of the body of the animal is covered with embroidered cloth, curioufly wrought according

ing to their notions of grandeur and elegance. The howdah itſelf, conſiſts of two, and ſometimes three ſmall apartments, and affords complete protection from the ſun. There ſits the monarch, fanned by two attendants, while the elephant moves along, with a ſlow, but majeſtic pace, entirely correſponding to the Aſiatic ideas of ſtate and magnificence.

It is on theſe occaſions, that this princely animal, which nature ſeems to have formed for the gratification of eaſtern luxury and ſtate, appears in his greateſt glory. Impreſſed with a conſciouſneſs of his importance in the ſervice of man, and gratified with the ſplendour of his accoutrements, he ſeems ſenſible of poſſeſſing the higheſt rank in the brute creation, and looks down upon the inferior tribes, not with a malevolent, but a dignified contempt.

Whether the elephant be employed for the purpoſes of war, of hunting, or of ſhew, his food is ſimple, and eaſily procured. He is fond of the leaves, and ſmaller branches of trees, which it is the buſineſs of one, or two of the natives to provide for him, while he lifts them with his trunk to the perſon ſeated on his back; their wages is in this article the only expence *. As the quick vegetation of trees, as well as of the graſſes, and eſculent plants, renders their juices thinner and leſs nutritive, grain is generally

* His allowance of grain is ſixteen ſeer.

rally added to this natural food of the elephant. Sixteen feer, or thirty Englifh pounds, is the Company's allowance to each for one day: in feafons of a common degree of plenty, this amounts to fo very moderate a fum, that feveral of the fubaltern officers in the Bengal army keep them for exercife or amufement.

The taking of this animal is attended with confiderable difficulty, and fometimes with danger. A number of the natives are employed driving them, or frightening them, by alighting fires, into a plain which is intended to be the fcene of their captivity. Here there is a large inclofure, leading to others of fmaller dimenfions, till they are at laft pufhed into one fo narrow, that will neither admit of their turning backwards, nor allow them to proceed. To facilitate this progrefs, they make ufe of females already tamed, who entice them forwards, by figns to them too unambiguous to be mifunderftood. The elephant is no fooner fecured in his narrow cell, than ropes are gradually wreathed around his body and legs, which preclude any danger of his efcape. By feeding and gentle ufage, he, in a fhort time, admits his keeper with great complacency: thus the fagacity of the elephant induces him to fubmit with a good grace, to a bondage which a cunning fuperior to his own, has put it out of his power to avoid. The India Company are fupplied with thefe ufeful animals by a contract with certain individuals, who make it their bufinefs to purfue and captivate them.

What is remarkable with them is, that thofe which are taken old, are more perfectly tamed than the young. The latter, from the fmallnefs of their fize, and the confequent impotence of their refentments, are indulged in playful familiarities with their keepers, which neither the fluggifhnefs of age, nor the maturity of their faculties, can ever afterwards induce them to lay afide.

The fize, habits, and appearance of thefe animals make a ftrong impreffion, when firft viewed by an European. When the king's troops firft had occafion to fee them falling proftrate on their belly, to facilitate the riders' afcent upon their backs, and then rife at a word from the native guide, who is placed immediately behind the ears, upon the neck; they teftified at once their admiration of their fagacity, and terror at their ftrength and enormous bulk.

The Pheel Kaneh (Elephants' Stables) conftituted a great object of the imperial care; and many minute and complex regulations were framed for the government of this department According to their qualities, age, and fize, thefe animals were claffed in a variety of different ranks, with an allowance of provifions and of men to each clafs, proportioned to the wants and importance of the animal. The elephant is chiefly ufed by the natives of India for riding, war, or in hunting, or fighting at the imperial amufements.

They

THEY were formerly taken in many more diftricts than at prefent, which affords a prefumption of the increafe of population: the great number maintained at the court of Delhi, and at the palaces of the viceroys, muft have proved a ferious wafte of provifions. The full complement of elephants required to be kept [illegible]nfubdar of the rank of ten thoufand, was two hundred; and allowing the maintenance of each elephant to be equal to that of forty men, the fubfiftence of eight thoufand perfons is required for the fupport of a part only of the equipage of a fingle officer; if to this be added the due number of camels, horfes, bullocks, &c. the retinue of this officer is, of itfelf, equal to a very large army.

THE account of this animal given by Abul-Fazel, is founded on more ample experience than that of any of our naturalifts, and would have furnifhed M. de Buffon with more accurate knowledge than he feems to have poffeffed on this fubject. The natural life of the elephant he ftates to be an hundred and twenty years; the female goes with young eighteen lunar months; in general fhe has but one at a birth, but fometimes two. The young one fuckles five years, after which time it feeds upon vegetables. At every ten years of its growth it undergoes fome change, and has a different name; the price rifing from 100 to 10,000 Rs.

The accoutrements and harnefs * of the elephant are very numerous and expenfive; for the lofs of them, and for any injury happening to the animal, the keepers are amerced or punifhed, fometimes with death. For each of the large-fized elephants four keepers are allowed, at ftated wages; viz. a Mehawt, Buy, and two Mayhets.

OF

* Above thirty articles are mentioned in the Ayeen Acbery, with the fines for lofing or deftroying them.

OF THE CAMEL, AND ITS USES IN THE ARMY.

Ganges, 1797.

THE utility of the elephant, as a beaſt of burden, in Aſia, highly as it is rated, is, in many reſpects, ſurpaſſed by that of the Camel. Inferior only in bulk and ſtrength, this patient ſervant bears fatigue, hunger, and watching, to a degree ſcarcely credible by thoſe who never witneſſed his toils. The weight he bears muſt bear ſome proportion to his ſize and ſtrength, which, in different individuals is various; but, when not overburdened, he will march without meat or drink, for days together. It is his uncommon power of abſtinence from drink that has recommended the camel, ſince the earlieſt ages, as the moſt proper animal for conveying proviſions and merchandiſe, in thoſe long periodical expeditions of the caravans, that make ſo conſpicuous a figure in the hiſtory of commerce and religion in many parts of the

the Eaſt. In travelling through the parched deſarts of many parts of Aſia, you can procure no water for many days; no tree, ſhrub, or trace of vegetation, is to be diſcerned. On all ſides you are ſurrounded by an over-powering heat from the glare of the rays of the ſun reflected from myriads of bright particles of ſand; or are enveloped in boundleſs clouds of duſt where theſe particles are drifted by the wind into the air.

Even thoſe comparatively ſmall banks of ſand, that are left naked by the ſubſiding of the Ganges, ſometimes appear like a cloud of ſmoke, and are a ſuffocating annoyance to the traveller during a high wind. Theſe, however they may give credibility to dangers ariſing from travelling through the unbounded deſarts of the interior country, exhibit but a faint image of the horror, ſtillneſs, and deſolation, which the aſpect of nature aſſumes in thoſe dreary regions.

Without the miniſtry of the camel, "the ſhip of the deſart" (as he has been denominated), or ſome animal equally patient and abſtemious, thoſe parts would prove impervious to the human race.

Though no part of Hindoſtan is equally parched and ſterile with Arabia and Syria, yet the camel has been uſed as a beaſt of burden from time immemorial: and in reading the patriarchal hiſtory, you are ſurpriſed at the coincidence and ſimilarity of the articles enumerated in the wealth of Abraham or of Job,

Job, and that of a Hindoo Rajah: each have their he-aſſes, and their ſhe-aſſes; their camels, and their goats.

WHEN the Eaſt-India Company acquired territorial poſſeſſions in this peninſula, and an army to protect them, they, in this reſpect, wiſely accommodated their regulations to the cuſtoms of the country, and the neceſſities of the ſervice. A number of camels, as well as of elephants and bullocks, are attached to each corps of their troops. So neceſſary indeed are they found, that many of the officers, before a march, ſupply themſelves with extra camels for their own accommodation. Their quietneſs and docility renders them peculiarly fitted for carrying tents and baggage; and, in general, the ſlowneſs of their progreſs is no inconvenience in the march of an Indian army. During its continuance the troops are put in motion at, or before day-break, and reach their ground to breakfaſt, at nine, ten, or eleven in the forenoon, according to the diſtance intended to move. By diſpatching the cattle early, the tents and baggage are pitched on the ground to be occupied, and breakfaſt prepared for the troops as ſoon as they arrive. When in the vicinity of an enemy, every circumſtance muſt vary with the occaſion; but as often as this is not the caſe, an eaſtern army will march without any inconvenience during the cold ſeaſon, in the manner I have deſcribed, to a diſtance of two thouſand miles. A great number of purveyors, coolies, bullock-drivers, and other camp-followers, are neceſſary: The rapidity

ty of an Asiatic march, to an European, must appear comparatively small: but these inconveniences, are partly from custom tolerated, and partly from necessity unavoidable. An officer, even of inferior rank, finds the service of between twelve and fifteen natives necessary to accommodate him; the grain, baggage, and provisions of the private soldier require a similar proportion of hands for their transportation. Thus a number upon the whole, perhaps, equal to three or four times that of the effective troops are always found in the retinue of an Asiatic army.

WHEN the Marquis of Cornwallis took the field, during the concluding campaigns of the late war, the whole number of his followers amounted, it is said, to near half a million: this nobleman is the last officer in his Majesty's service who would in any instance, give way to that inefficient expenditure which their vanity and ostentation has sometimes extorted from our commanders in India. These passions are infectious in the East; and to them the native princes, with a childish effeminacy worthy of their character, have almost universally sacrificed their true importance and power.

THE detachment I now accompany, proceeds by water, on a march towards the upper provinces, and though it consists only of a few hundred men, 1800 natives are scarcely sufficient to drag our boats against the weight of the stream.

THE

The number of men neceſſarily attached to an Indian army, gives a degree of credibility to the accounts tranſmitted to us of the forces and retinue of Artaxerxes, when he invaded the ſmall republics of Greece, and rendered their valour immortal by the defeats which he ſuffered. The population and reſources of that monarchy were unqueſtionably great; and if an army of near two hundred thouſand men followed the great king, this will account for the vaſt hoſts, with which, the Greek hiſtorians inform us, he intended to deſolate Europe. The epithet of Mendax Græcia, which with the Roman ſatiriſt has loaded that brave and ingenious people, may, therefore be found to contain more malice than truth; for the the Zemindary troops, or militia of India in the time of Acber, are ſtated at four millions in the Ayeen Acbery.

The motion of the elephant, the driver, ſeated immediately behind his ears, can direct or accelerate as he pleaſes by means of a prong of ſteel: but hardly any application will give rapidity to the camel: he is in general accuſtomed to travel under a load, and his whole habits and conſtruction diſqualify him for ſpeed. His limbs are indeed long, and robuſt; but they are unwieldy, and ill-proportioned. The officers upon a march, therefore, generally prefer a horſe; every one of which lays him under the neceſſity of keeping, at leaſt, two additional ſervants, a graſs-cutter (graſſiah), to gather his proviſion, and a groom (ſyce), to keep him in order. So obſtinately does

every

every native of India adhere to his little ſphere of duty, either from indolence or religious prejudices, that you may as well attempt to remove a mountain, as perſuade the ſervant who dreſſes your horſe, to cut his graſs, or *vice verſa*. Nor does this prevail in one part of menial ſervice only; it pervades it throughout.

Something here, I will allow, muſt be imputed to the vanity of Europeans; which, in ſome inſtances, reduces them to the pitiful condition of craving gratification from the number and buſtle of their attendants. When this is the caſe, it is eaſily diſcovered; for it courts your attention: the number of native ſervants employed *nine* times out of ten, is owing to themſelves, and not to their maſters. To the latter, they are always an expence, and too often a vexation. After the uſual number of them is provided for your baggage, your cattle, and your own attendance, you are far from being either ſo independent, or ſo comfortable, as a ſingle foot-boy in Europe can make you. Sometimes their officiouſneſs diſguſts, their negligence and indolence ſtill oftener frets; while perverſeneſs and diſhoneſty fail not to provoke the maſter whoſe temper is not under uncommon control.

From theſe particulars you will readily conceive, that travelling is in this part of the world unavoidably expenſive; liberal as the pay of the army appears, a ſubaltern on duty cannot make any conſiderable ſaving from his allowance. Inſtances of folly and

and extravagance then no doubt often are; nor is it our buſineſs to vindicate them; but in Europe, I know, it is too often the cuſtom to calculate according to their own wants, by their own ſcale, and, conſequently, to blame as extravagant diſſipation, that very conduct which, in the ſame circumſtances, they would themſelves be infallibly compelled to adopt.

The daily expence of a horſe, added to the intereſt of his original price, the camel, and his keeping, with the wages of fifteen ſervants, are heavy items monthly againſt a ſubaltern's pay; and it is certain, that he could not be equally ſerviceable without moſt of theſe auxiliaries; without many of them, he could be of no ſervice at all.

Yet many ſubalterns in Bengal have accumulated money; by parſimoniouſly ſaving every poſſible ſum, and by debarring themſelves of many comforts which the climate certainly requires.

The general features of the European character in India is certainly profuſion: when the oppoſite temper prevails, it is indulged without any bounds. Greater examples of avarice and parſimony cannot, perhaps, any where be produced than this country can furniſh, and theſe are moſt commonly among the rich. A perſon worth one hundred thouſand pounds, has been known to linger in the country for the ſake of accumulating a little more, evidently

at the riſk of his life: often life itſelf has been ſacrificed to this irreſiſtible appetite; which, like ſome diſeaſes, grows by indulgence.—

Creſcit indulgens ſibi dirus hydrops.

OF THE BUFFALO, AND THE DRAUGHT CATTLE OF HINDOSTAN.

. . . .

Mongeer, 1797.

In giving an account of the cattle of Bengal, the buffalo ought not to be omitted. This animal, in its wild ſtate, is found in almoſt every part of the continent, and in moſt of the iſlands. This is in all probability the aboriginal race of horned cattle, from which the various diverſities have been produced, during many ages in their ſtate of domeſtication. In Bengal, great numbers are found, both tame and wild. In the latter ſtate, they are perhaps the moſt formidable enemies you can meet upon a journey.

They are generally jet black; and characteriſed by long ſemicircular horns, which inſtead of ſtanding erect, or bending forward, are laid backwards upon the neck. Theſe horns which, from their awkward

awkward position, you at first may imagine inoffensive instruments, are, in reality, most formidable weapons. If you either come upon the buffalo by surprise, in a situation where he cannot escape, or offer him any provocation, he makes a violent attack, with his snout placed between his forelegs, and his horns pointed forwards. If you cannot escape the push, by instantly leaping aside, you are caught upon his horns, and infallibly torn to pieces. So quickly does he turn and renew his attacks, if he fail in the first onset, that there is no hope for the devoted victim of his fury, if he cannot reach a tree. Even when the traveller has been thus fortunate, so implacable are the resentments of this animal, that many instances are known where he has remained for several hours at the root of the tree, expressing his rage and disappointment. One gentleman, who fortunately escaped in this manner, assured me, that his pursuer kept him a close prisoner upon a tree for a great part of a day; till he at last bethought himself of throwing down his coat; upon which, having satiated his rage, the buffalo disappeared.

With all this hostility, the buffalo is, strictly speaking, neither a predatory, nor an offensive animal. He is in general roused by some provocation, or instigated by the principle of self defence, before he commences an attack upon man. Happy it is for the poor Bengalees, that this is the case; for his immense strength enables him, when they fall in his power, to toss them in the air with as much facility

us he would a cat: and if you may judge by the terror of the natives on the appearance of a wild buffalo, you muſt conclude that it is not uncommon for them to fall a ſacrifice to his reſentment. I had lately an opportunity of ſeeing one of them ſurpriſed on the river ſide, by my dandies, (boatmen) in his retreat among thick graſs above ſix feet high. The poor ſailors inſtantly precipitated themſelves from the bank into the river, with ſcreams of terror. Happily for us, the animal himſelf ſeemed to have been agitated by ſimilar ſenſations, for he ſcampered away with great ſpeed to a conſiderable diſtance, before he even ventured to look behind him.

NOTWITHSTANDING theſe unpromiſing habits, the buffalo is fully capable of domeſtication. I have paſſed through whole herds of them, in the diſtricts of Purneah, and Kiſſengunge, that ſeemed as perfectly tame, as the other cattle which grazed along with them. They are employed in carrying goods, for which their ſtrength renders them more ſerviceable than an ox. They are kept in herds for the ſake of their milk, from which is made Ghee, that univerſal article of Hindoo diet.

THE buffalo is hardly any where employed in a teem. His food is more coſtly than that of the bullock; and though his ſtrength be far ſuperior, that circumſtance is perhaps of no great moment in the preſent ſtate of the Indian plough, which, from appearance,

pearance, might be drawn by two goats as well as cattle.

The milk of the buffalo is of a rank taste, and the butter bad; what is procured in the Bazar, is generally of a very inferior quality, and is perhaps the produce of this ſpecies, as frequently as of the cow.

A mixture of the buffalo, with the common horned cattle of the country, gives a pleaſing variety to the herd of a farmer. They are all black, while the common cows and oxen are five ſixths of them white, with a mixture of iron grey, which deepens in its colour towards the face, and the extremities of the legs and tail. Theſe cattle, ſeen at a diſtance in the fields, are generally miſtaken by Europeans on their firſt arrival, for flocks of ſheep, from their white colour, and diminutive ſize. It is from the laſt circumſtance, that ſome conclude that their place in the yoke might be advantageouſly ſupplied by the buffalo; for at the ſeaſon I now write, ploughs, and cattle, pitiful beyond all deſcription, are daily ſeen by the ſides of the river, ſcratching the fields in a manner more reſembling the paſtime of children, than the labours of farmers, who are to provide the food of millions of inhabitants. With better cattle, and more ſubſtantial implements, a much more effectual tilth would be given the ſoil, than by five or ſix ſtirrings in the preſent method. But for the preſent management hardly any expence is incurred at all.

... The plough is made by the farmer from the first tree that ſuits his purpoſe: were it conſtructed by a tradeſman, or were his cattle of a better breed, or better fed, money muſt be advanced, which he cannot afford.

The beef, hide, and horns, of ſo large an animal as the buffalo, were he within the reach of an European market, would prove valuable articles of commerce. Here neither of theſe articles are of much conſideration. The hide of an ox is ſo cheap, that you have it tanned, and manufactured into ſhoes, at half a rupee, about 1s. 3d. per pair; by the few natives who wear leather ſhoes, they are procured much cheaper.

Some Europeans have lately engaged in the tanning of leather, and the manufacture of ſhoes, apparently with great ſucceſs. They produce theſe articles nearly of equal quality, and ſo cheap as nearly to preclude the ſale of European inveſtments of this commodity.

The common draught cattle of India are diſtinguiſhed by the peculiarity of a large hunch, or protuberance, above the ſhoulders, upon which the yoke reſts. In ſize, they are ſmall, but well proportioned, and ſingularly active. Thoſe kept for travelling coaches are capable of performing long journies nearly in the ſame time with a horſe. The bad condition, and pitiful plight in which they are often

kept

kept by the poor Ryuts, is not able wholly to destroy these excellent qualities of the Bengal cattle: they work patiently in the yoke, beneath the vertical sun, for many hours, and upon the most wretched food, chaff or dried straw.

OF THE BREED OF SHEEP; AND TREATMENT OF THE HOG.

Chandernagore, 1797.

After describing the working cattle of the Hindoos, and some of the more useful of their domestic animals, I cannot close this subject without mentioning their breed of sheep, and goats. These animals are both reared, and in very great abundance, if you make allowance for the small consumption of them arising from those circumstances in their superstition, which I have already mentioned.

The size of the Bengalee sheep is small; his figure lank and thin; and the colour of three fourths of a flock, is black or dark grey. Hence in Asia, the colour of cattle is in general exactly the reverse of that in Europe; what we term in England, a herd of black cattle, is here white; a flock of sheep,

which at home is generally white, here is dark grey or black.

The quality of a fleece of wool, in this country, is worse, if possible, than its colour: it is harsh, thin, and hairy, in a very remarkable degree. No part of cloathing, or domestic furniture, so far as I have observed, is manufactured of wool, except a coarse kind of blanketting, which some of the dandies, and people in the upper country, use during the cold season, as a wrapper in the night: this luxury is, however, by no means general, or even common; though there is reason to believe that every native, did his income admit of it, would wear a blanket at certain seasons, and at all times would lie on one. I know nothing with which you can compare the India fleece, unless that hairy stuff, the refuse of marketable wool, which the farmers were in some parts of Scotland wont to make into a cloth for covering their malt kilns.

The breed of sheep, which I had an opportunity to examine on the Coromandel coast, between Bengal and Madras, are still of an inferior quality, both with regard to the fleece and carcase. From their coarse hairy covering, and their thin and incompact shape, one is led to conjecture that they must have some affinity to the goat or the deer. They present the exact figure of what might be supposed would be possessed by an intermediate race between the sheep, and those animals. Two or three of them may,

may, in some parts, be purchased for a rupee: and though they may be of considerable use to a ship's company after a long voyage, they are otherwise a very unprofitable purchase. Hardly any thing short of absolute want can make an Englishman relish such mutton, if it can be called by that name. The Europeans, in these parts, frequently procure a supply of Bengal mutton, indifferent as it is, from the impossibility of making a comfortable meal of that reared in their vicinity.

THERE are in Bengal a few sheep with four horns, two on each side of the head. This is a regular discriminating mark of the species, and not a *lusus naturæ*. These are superior in size, and better proportioned than the common kind; but their number is small.

IN this respect, the province of Bengal possesses a manifest advantage over most other parts of India; for though you there procure your mutton from the Ryut small in size, and in miserable condition, by good keeping for eight or twelve months, you supply yourself with mutton, which in richness and flavour, is not inferior to the grass-fed mutton in Europe.

IT is in this manner that the officers of the army, and the civil servants of the Hon. Company, supply themselves at all the remote stations, both with beef and mutton. The cattle are regularly fed with gram twice

twice a day, by their own ſervants; a herdſman is hired to ſuperintend this buſineſs, whoſe pictureſque figure, leading his flock around the cantonments, recals to your imagination the venerable ſimplicity of the patriarchal ages: he goes before his flock, and regulates its motions by his call: "The ſheep know his voice, and follow him."

Thus are the officers of the army provided, if not with luxuries, at leaſt with the comforts of the table; while an innocent amuſement is afforded them, which contributes its part to animate the liſtleſſneſs of an Indian life. Circumſtances of this kind, however minute or contemptible they may appear in deſcription, have a greater influence on the moral character and happineſs of men, than we are commonly aware of. A numerous ſociety of young men, who have not been early bred to literary purſuits, experience the ſad *tædium* of the military life during peace, which they are ever in danger of diſſipating by exceſs, gaming or extravagance, indulgences pernicious every where, but particularly fatal in every part of India. The fleſh of the goat is not uſed as an article of food, unleſs in ſome few inſtances, where it is ſurreptitiouſly introduced in place of mutton, by a connivance among the native ſervants. The kid, however, is a very common diſh; and it is the only one which the Hindoos produce in tolerable condition. Here nature produces a ſufficient ſupply of proper food in the milk of the dam; and all required of the keeper is ſufficient honeſty to prevent

vent him from abſtracting its ſupport. Goat's milk is commonly uſed at the tea and breakfaſt table; and if by that article the native can make a ſingle ana, his virtue will ſeldom enable him to reſiſt the temptation, and do juſtice to the kid, even where he is the owner himſelf, and to receive a price proportioned to its quality. This peculiarity characteriſes the natives of every deſcription: perfect children in reflection, a preſent gain, however trifling, in their eſtimation, outweighs a future good, though equally certain, and of ten times the amount. A Hindoo, though reduced to the laſt farthing, if he has curry and rice for the preſent day, will not work for the ſupply of the next "Sufficient to him is the evil of the day;" he "takes no thought for tomorrow."

The goat, which is every where a lank and ill-conditioned animal, approaches nearer to the European ſtandard, than perhaps any other animal in Bengal.

Neither the horſe, the ſheep, nor the goat, have any peculiar ſanctity annexed to them by the Braminical ſuperſtition. It is otherwiſe with the cow; which in India is every where regarded with veneration, and is one object of peculiar worſhip. Repreſentations of objects are made upon the walls with cow dung, and theſe enter deeply into their routine of daily obſervances. The ſame materials are alſo dried and uſed as fuel for dreſſing their victuals: for this

this purpoſe the women collect it, and bake it into cakes, which are placed in a poſition where they ſoon become dry and fit for uſe.

The ſacred character of the cow probably gives this fuel a preference to every other, in the imagination of a Hindoo; for it is uſed in Calcutta, where wood is in abundance. M. De Voltaire has diſplayed at once his ſuperficial acquaintance with Aſiatic manners, and his propenſity to ridicule, in his attempt to vilify the ſacred writings, on account of ſome expreſſion relating to this ſubject, uttered by the Prophet Jeremiah.

On certain occaſions, it is cuſtomary for the Hindoos to conſecrate a bull, as an offering to their deities: particular ceremonies are then performed, and a mark is impreſſed upon the animal, expreſſive of his future condition to all the inhabitants. No conſideration can induce the pious Bengalee to hurt or even controul one of theſe conſecrated animals. You may ſee them every day roaming at large through the ſtreets of Calcutta, and taſting rice, gram, or flour in the Bazar, according to their pleaſure. The utmoſt a native will do, when he obſerves the animal doing too much honour to his goods, is to urge him, by the gentleſt hints, to taſte of the vegetables or grain, on his neighbour's ſtall.

A remarkable example of Oriental ſuperſtition occurs in the treatment of one of the moſt uſeful domeſtic

meſtic animals, the hog. The Mahommedans, whoſe numbers are conſiderable in almoſt every part of Hindoſtan, are prohibited from eating this animal by their law; and however ſlightly they regard its moral precepts, like every ignorant people they pay implicit veneration to its ceremonial and ſuperſtitious injunctions In rearing this uſeful animal, they are out of the queſtion. To the far greater part of the Hindoos, this economy is denied by a prohibition ſtill more pernicious, becauſe more general, which forbids the higher claſſes the uſe of every terreſtrial animal, in the claſs of quadrupeds, as an article of food. Some there are, I am aware, of the dregs of both people, who either from miſdemeanours of their own, or from hereditary meanneſs, are deſtitute of all rank, and conſequently are free from the tyranny of opinion. Theſe may eat pork, or any kind of fleſh, but unfortunately they are unable to pay for it; for they are in general employed in the loweſt menial offices about Europeans, and ſubſiſt on what is carried away from their tables, after it has been rejected by the Portugueze, and upper ſervants. In this inſtance, then, the farmer is deprived of a market for one of the moſt wholeſome, and the moſt eaſily reared of all kinds of animal food. What relief might not be found, during a ſcarcity of grain, by reſorting to pork, where fruit and other nouriſhment for it is ſo abundant!

Till lately, a ſimilar prejudice againſt this kind of food was entertained in ſome parts of Scotland: but the

the knowledge lately diſſeminated through that kingdom, by the means already mentioned, has in part already done it away. A judicious farmer, in that country, lately told me that he had begun to rear ſwine upon the refuſe of his dairy and of his grain: and to fatten them with potatoes or meal as opportunity offered. On a compariſon of his profits in this method, with thoſe made by the ſame articles ſent immediately to market, he found a very conſiderable balance in favour of feeding; a practice which he has ſince continued.

Asiatic prejudices are more deeply rooted, than thoſe of our countrymen; and where ſupported by ſuch numbers and intereſt, we have not the ſame means of removing them. Herds of ſwine I have met with in Bengal; but they are in ſmall numbers, and merely intended for the Europeans and outcaſts, the former of whom bear not, perhaps, the proportion to the whole of the inhabitants, of one to a thouſand.

There is hardly any degree of ignorance, or of indolence, at all compatible with a ſtate of ſociety, that is not adequate to the rearing of this uſeful animal. In many of the iſlands of the South Sea, it was found a valuable acquiſition to our ſhip's ſtore of proviſions, and conſtituted the only animal food known to the natives.

No

No country is perhaps more productive of nutritive plants and fruits, than Bengal; and these, in the hands of the patient and industrious natives, might be applied to the feeding of pork with the happiest success, could the chains of their superstition thus far be broken.

The sugar cane is remarkably nutritive; and while it is in season, the wild hog is in excellent order, as well as flavour. What loss is sustained from the refuse of a sugar farm being applied to other purposes, or perhaps lost!

Though the artifices of the priesthood have effectually debarred the Hindoos the use of the hog, no contrivance has yet been fallen upon to free them from the destructive ravages of that animal in its wild state. In some districts, the jungles are much infested by them; from whence they issue forth in the night, and prey upon the rice fields, where the quantity of food they trample down is much greater than what they devour. Thus the poor Hindoo is condemned to have his sustenance, earned by the sweat of his brow, continually wasted by an animal which providence has fitted, of all others, the most liberally to contribute to his support.

On travelling through the country you see a sort of platform raised upon bamboos, and covered with thatch, where the proprietor of the rice field stations a servant to watch the incursions of the wild hogs

during night. This cannot be done without a considerable trouble and expence, for you sometimes see several of these erections in the same field: yet there is reason to apprehend that the owner, [illegible] all his precautions, is annually robbed to a considerable amount.

OF

THE JACKAL, AND OTHER PREDATORY ANIMALS.

. . . .

Sootee, Nov. 1797.

THE predatory animals, among the quadrupeds, birds, and infects, are extremely numerous in every part of India. Their depredations are often hurtful, and always vexatious; but their prefence in a warm climate, in any confiderable degree populous, feems neceffary.

THE Jackal holds the moft confpicuous place among this tribe, either confidered with regard to his annoyances or his utility. The figure and general habits of this animal are fufficiently defcribed in every treatife of natural hiftory: what is remarkable of him here, is the familiarity with which he enters the largeft cities; and the mournful howlings by which he interrupts the filence of the night.

EACH

Each night, about twelve or one o'clock, he enters the ſuburbs of Calcutta, and ſoon traverſes every lane and ſquare of that capital. The noiſe he makes is ſtill more loud and mournful than the howling of the dog: at certain intervals, it is conſtantly renewed during every hour of the night, and its entire ceſſation is a ſure ſymptom of the approach of day; a circumſtance which, probably, would not have eſcaped Dean Swift, in his deſcription of the morning, had he ſeen this part of the world: however this be, the ſilence of the jackal on Aurora's approach, is a fact yet unſung, and remains in that ſtore of untouched materials which is deſtined to decorate the works of ſome future poet.

The principal characteriſtic of the jackal is his voracity; which permits little or no diſcrimination in the choice of food. This is probably the chief ſecurity of the hen rooſts, which he never robs, if his gluttony can be ſatiated by the filth and carrion of the bazars and ſtreets. In every large town more or leſs of ſuch impurities are collected, and would of neceſſity ſoon taint the air, in a climate ſo hot as India, were it not removed by theſe ſcavengers provided by Nature.

The jackal wanders through every village and farm-yard, as punctually as the ſtreets of Calcutta; but there his cravings are more importunate as his [illegible] is leſs conſiderable. It is ſaid that the howl [illegible] this animal inſtinctively utters, is received as a ſignal

signal of purſuit, by every other in the ſame vicinity; and by a continual acceſſion of numbers, they are enabled to run down the hare, or the wild pig; because the place of ſuch as become fatigued, and are obliged to deſiſt from the chace, is ſupplied by freſh aſſiſtants, who in time accompliſh the work of death. Of this fact I have no evidence, and cannot vouch its truth.

The Pariah Dogs roam night and day about the dwellings of the natives, and perform for them, with leſs noiſe, the ſame friendly offices of the jackal. To this animal we have nothing correſponding in Europe, excepting in the ſtreets of Conſtantinople. It is perfectly tame among the natives, and enters their houſes, at all times with the familiarity of a domeſtic: to Europeans his experience renders him more ſhy, as he is often purſued by the young cadets for want of other ſport. Such a number of dogs prowling about the ſtreets, and under no confinement, becauſe claimed by no perſon, renders canine madneſs a matter of ſerious apprehenſion in Calcutta. When ſymptoms of hydrophobia appear, the whole race of pariah dogs is proſcribed; and the natives, whoſe humanity upon almoſt every occaſion yields to their love of money, kill great numbers, for two anas a dog, the price put upon each head.

These dogs are ſaid to be very uſeful, in picking up filth and nuiſances from the ſtreets. They are generally mangy: in ſome the diſeaſe [illegible] on ſo foul and

and morbid an appearance, as fully evinces the groſſneſs of their appetite, and the impurity of their food. It is certain, that the human bodies thrown into the river, are not ſecure from their voracity.

The pariah dog ſeems, from its external figure, as well as its habits, to have an affinity to the jackal. It is not improbable, that an illegitimate commerce may be ſometimes carried on between theſe different branches of the canine tribe. This circumſtance is ſuppoſed, by the Compte de Buffon, to increaſe the varieties of the feathered race, as often as unpaired individuals of different genera and ſexes meet in the foreſts; "*qui ſcait, tout ce qui fait, dans les fonds des bois?*" ſays that lively writer; and it may be equally difficult to aſcertain what enterpizes theſe abominable animals are engaged in throughout the lanes and jungles during the darkneſs of night.

The large long-tailed Ape is another deſtructive animal, that hovers around the dwellings of the natives of Bengal. This animal, in this province, is ſeldom ſeen far from the neighbourhood of man: there his cravings often inſtigate him to pilfer the food of the natives, who ſometimes repel him; but oftener, from a kind of reverence they have for the tribe, they ſupply his wants.

In Bootan the natives pay a ſort of worſhip to the monkies; when invaded by the Chineſe, they expreſſ-

ed

e greatest horror at seeing them eaten by that

[illegible] at every village you hear numbers of [illegible] among the trees: a large ape will run over the whole breadth of a banyan-tree, leaping from branch to branch nearly as quickly as it would upon the ground. Such feats of agility in the females [illegible] more remarkable; as they often spring fr[illegible] to branch, while a young one, perhaps, of [illegible] size, hangs by its claws from her belly, with its back turned downwards.

When kindly used, they seem grateful, and soon become familiar; but they remain always watchful and suspicious: on receiving any injury, they are irritable and vindictive in a very high degree. One of our officers, when pursuing game, fell in with a tribe of them, and imprudently discharged his musket, and wounded one. The ape, rendered incapable of flight, instantly determined to repel force, and in grappling with the officer, threw him upon the ground, and tore his clothes and skin: the officer, after this inglorious combat, was glad to retreat to his budgerrow, in a plight that drew from his companions much more ridicule than pity.

It is thus that the ape of Bengal retaliates their violence upon the lords of the creation, when their dominion degenerates into caprice or tyranny: and it must sometimes be regretted, that the spiritless Hindoos

doo cannot imitate the ape in the magnanimity [illegible] reſentment, and vindicate the rights of natur[illegible]

The gentleneſs and tender treatment of th[illegible] [illegible]en-galeſe to all the animals, is an amiable [illegible] [illegible] character; for which he is, probably, m[illegible] [illegible]ebted to the influence of his religious opinio[illegible] [illegible]re can be no doubt, but the regard ſhown [illegible] [illegible]w, the ape, and many of the birds, proceeds [illegible] [illegible] ſource. The belief, that his ſoul, by tranſmig[illegible] [illegible]re-after animate one of theſe creatures; [illegible] [illegible]t [illegible] pre-ſent it may be the reſidence of the ſpirit of a depart-ed friend; certainly creates a ſtrong obligation on his mind to treat them with tenderneſs, and even with affection.

However this be, it is certain, that gentleneſs to the brute creation is conſpicuouſly diſplayed in every part of his conduct. The inferior animals, who are taught by experience, whether to ſhun or aſſociate with man, ſeem perfectly acquainted with this diſpo-ſition of the Hindoo. In that confidence with which they approach him, they pay a compliment to his hu-manity, which would prove at once indiſcreet and dangerous if paid to an European. Even the chil-dren ſeem leſs miſchievous and annoying to the wild animals, than in Europe. Did the ſame number of jackals enter a large town in England, and ſtroll there in the ſame manner that they traverſe each night the ſtreets of Calcutta; a thouſand ſtratagems and dangers would aſſail them; and, probably, few would

·ld make good their retreat to the woods, in the l: g.

Ir... it is that the Crow, Kite, Mino, and Sparrow, ... about the dwellings of the Orientals, with a deg...e of familiarity unknown in Europe. The houſes of the Engliſh are alſo haunted by theſe intruders; who frequently pilfer from the diſhes of meat, as they are carried from the cook-room to the ha'' ... obvious cauſe of their impunity in theſe en... the inability of Europeans to purſue them in ſo ho... a climate. Perhaps indolence, produced from the ſame cauſe, will in part account for the forbearance of the natives: tenderneſs, on ſome occaſions, to noxious animals, rather merits the appellation of an indolent facility of nature, than a moral virtue.

In ſome parts of Europe, the Stork is protected by law, for his ſervices in deſtroying noiſome reptiles: here the largeſt bird of that ſpecies finds equal ſecurity in the gentleneſs of the natives. This creature, by far the ſtatelieſt of his tribe, is ludicrouſly termed the *adjutant*, from his erect poſture, and military ſtrut. He ſtalks about at a few paces diſtant from the natives; and if he ſtretch his long neck and bill, he nearly equals them in his tall and portly figure. Toads, ſerpents, lizards and inſects, are his food; of which he is remarkably voracious, being endowed with a ſtomach of very ſtrong digeſtive powers. The ſoldiers about the cantonment ſometimes ſport with

his voracity, at the expence of his quiet: a l piece of meat, faſtened by a rope, and a ſtake to ground, is thrown out to him: this he ſoon ſw lows; but when he attempts to retreat with the rich meal, he is held by the rope, till he ſubmit either captivity, or diſgorge his food: to an animal ſo vora cious, this alternative is cruel.

THE AGRICULTURE OF THE DISTRICT, AS AFFECTED BY THE GANGES.

. . . .

Rajahmahl, 1797.

THE more frequently you examine the operations of the Ryut in Bengal, the more fully will you be convinced of their inefficacy; either for the foil of this country, or perhaps of any other. We have here witneffed the effects of four ploughings upon a field newly opened from the *fward*. In an uncultivated ftate, the foil of this province becomes remarkably firm and tough; it confifts of a mixture of earth, fo clofely interwoven with the roots of grafs, as to form a kind of matting. A very ftrong teem of cattle would probably be put to a ftand by the ftrength and cohefion of thefe numerous roots: the Bengalee plough fcarcely makes any impreffion at all perceptible, on firft paffing over it; and it would make ftill lefs, were it not for a precaution generally taken here in breaking up new foil.

ON

On occaſions of this kind, the long coarſe g[illegible] called jungle by the natives, is ſet fire to, an[illegible] pletely burnt off, before the commencement of ploughing. This not only lays the ſurface bare, but gives ſome degree of friability to its exterior, which admits of thoſe ſlight impreſſions which you diſcern after the plough. Five or ſix ſtirrings, if ſo they can be called, are ſcarcely ſufficient to produce the appearance of a mould: the large clods upon which proving invincible to the plough, are next attacked with an inſtrument intended for the ſame purpoſe as our roller.

This exactly reſembles a ladder of about eighteen feet in length; and is drawn by four bullocks, which are guided by two men, who ſtand upon the inſtrument in order to increaſe its weight *. This implement, like the plough, produces only a ſlight effect; ſeveral applications of it are neceſſary upon the ſame ſurface, before any thing like a mould can be produced. Thus days are conſumed, and endleſs labour loſt, upon a ſmall piece of ground, which the ſame hands could have completely ſubdued with the ſpade in one half of the time.

In this diſtrict, the long graſs, called jungle, is more prevalent than I ever yet noticed. It riſes to the height of ſeven or eight feet, and is topped with

* The ordinary ſubſtitute for the harrow, on tender ſoil, is a branch of a tree.

tiful white down, resembling a swan's feather. The mantle with which nature here covers all the uncultivated ground, and at once veils the indolence of the people, and the nakedness of their land. It has a fine shewy appearance, as it undulates in the wind like the waves of the sea. Nothing but greater variety to its colour, prevents it from being one of the most beautiful objects, in that rich store of productions with which nature spontaneously supplies the indolent natives.

The crops are here finely diversified with the castor oil plant, Ricinus *Palma Christi*: this is an excellent medicine; but the quantity raised far exceeds what is necessary for medical purposes; it furnishes an aromatic oil. There are some other flowering shrubs which I shall afterwards more particularly specify. The Indian Corn, Doll, Kelai, and Mustard, make still a part of the crop, as well as the more common articles of rice, mulberry, and the indigo plant. In variety of produce, the Hindoo probably equals, if he does not surpass the English farmer; and this is perhaps the only point on which you can justly give him a preference.

There is perhaps one situation in which the difference between an European and Hindostanee plough, is not greatly perceptible; and that is where a field is ploughed while it is covered by water. The work produced is then concealed by its surface; and

more

more nearly resembles the operations of a potte[illegible] preparing and *setting* his clay, than the cultiva[illegible] a field: many fields of rice, however, are not [illegible] tilled, but planted in this condition. The me[illegible] performing it is the following:

THE farmer previously sows a [illegible]all space of ground, after being manured, with a v[illegible]ry thick crop of rice. After this crop has risen to [illegible] six or eight inches, it is carefully taken [illegible] the roots at each stalk. In this state it is [illegible]ght upon the field under water, where it is planted, by dropping one or two together in each space, and others at equal distances, till the whole field, or rather sheet of water is completed. The means used to sink it to the bottom, so as to secure it a proper root, are at once simple and ingenious: a small ball of clay is formed around the root of each stalk, to carry it perpendicularly to the bottom, and to secure it nourishment, till the roots, by spreading, produce a more liberal supply. Such crops may be tedious in their preparation; but I am informed that they generally compensate the trouble by their abundance.

RAJAMAHL is still distinguished among the villages of Bengal, by having formerly been the residence of the Rajahs of this rich province, and afterwards of the Mahommedan viceroys. The ruins of this spacious palace are still partly standing; and from the apparent strength, and durability of the materials, might have continued entire for ages, had it

not

not been for the irresistible encroachments of the Ganges.

On many occasions the Hindoos pay dearly for their veneration of this river: whole villages are in one season, perhaps in a single night, undermined by its stream, and buried in the water. This has at last been the fate of the palace of Rajahmahl, after it had stood for ages one of the greatest monuments of magnificence of which this part of India can boast. The outer walls were from seven to fourteen feet in thickness, and their foundation laid twenty below the surface of the ground. The soil contains a mixture of granite rock, which is seldom to be found in the plains of Bengal. But the wisdom which dictated these precautions, and the strength of the fabric, have all been overpowered by the force of a stream which has ever been irresistible, where it directs its hostility.

The palace of Rajahmahl is equal in extent to Windsor, but is greatly inferior either in antiquity or the state of its repair. Its empty halls, marble parlour and half decayed vaults, still present images of its former magnificence; which cannot be viewed without a certain degree of veneration and respect: the despotism of the East is great even in its ruins.

On the opposite bank to Rajahmal are the remains of the ancient city of Gowr, or Luchnuti, said to be fifteen miles in length by three in breadth. There

There are hardly any buildings ſtanding at preſent; immenſe mounds of rubbiſh and brick duſt is all that now remains of that city, probably one of the largeſt then in the world. Corn fields and jungles are making gradual encroachments even upon theſe laſt veſtiges of the grandeur of Luchnuti, the former capital of Bengal.

The conqueſt of Bengal by the Mahommedans was completed in 1595. It has ever ſince, till our times, remained under their dominion. The antiquity of the palace of Rajahmahl is apparently much more remote than the reign of Aurengzebe, to whom it is aſcribed; but in India the decay of all buildings is rapid. Two hundred years is comparatively a ſhort period to that of many of the family ſeats in Europe.

The Mogul governor, to whom the province is intruſted, held his court originally at this place. Since the year 1718, it has been removed firſt to Decca, and afterwards to Moreſhedabad, a large town about an hundred miles above Calcutta. There the preſent deſcendant of the ancient Nabobs is kept upon an annual penſion of ſixteen lacks of rupees. He ſtill keeps a conſiderable retinue of infantry and cavalry, who accompany him with all the parade of royalty as often as he makes excurſions into the country.

The

THE important post of Rajahmahl, and the government of Bengal, were occupied for some time by the sons of the Great Mogul. They frequently misapplied both the treasure and the force entrusted to their charge, and raised disturbances in the empire *. Governors were next chosen, of less personal influence, and more dependent; who might occasion less alarms to the court of Delhi. These persons were equally remiss in transmitting the tribute of this province to the Royal treasury: their abuses were carried to so great a height, that the Emperor unable to pay the Mahrattas the sums he owed them, authorised them in 1740 to collect it in Bengal themselves. For ten years three savage armies of that warlike people ravaged this rich province, and carried off all its wealth.

FROM this source the present waste and uncultivated state of this fine province, must certainly be in a great measure ascribed. The short period which it has remained in our possession, has been more tranquil than any it probably enjoyed for many centuries before; but this period has been too short to dispel that gloom of desolation which had so deeply overcast this fertile kingdom.

* Vide Abbé Raynal, Tom. I. lib. 3.

EFFECTS OF THE GANGES ON THE AGRICULTURE OF BENGAL.

· · · · · · · · · · · ·

Ganges, 1797.

SOME of the disasters of Bengal, are imputable to the river; for the Ganges, though unquestionably a source of much wealth and fertility to a vast extent of country, is also at times the dispenser of mischief, and the cause of famine, the most serious calamity of Bengal. This season, from a deficiency of rain in the upper parts of the country, the waters have not risen to their usual height; those low-lying rice fields, of whose fertility they are the principal cause, from want of their usual stimulus, are certainly deficient in crop, and serious apprehensions are begun to be entertained of the supplies for another year. A single bad season is not of itself sufficient to produce a real scarcity of grain, so abundant in general are the resources of this country; but unfortunately the

the very report of a defective crop sets to work all the jobbers and speculators in the country.

No movement of this great river is uninteresting to the Bengalese peasantry: if when he subsides he causes distress; when he unusually overflows he is equally detrimental, and tremendous. Last year, at the period in which I now write, whole districts were buried under water for several feet; and you might sail for many days over corn fields, from which the grain was either swept away or destroyed: cottages, and whole villages were surrounded; and many of the native huts were laid in ruins, along with the owners, where they could not make their escape in boats. The destructive ravages of the last season were however followed by no general scarcity: the abundance of one district made up for the loss in another; and amidst the general plenty individual distress is easily overlooked, or soon forgotten.

Even in its ordinary state, the river is an expensive instrument of fertilization, and internal commerce. The ordinary channel necessary to carry along the usual quantity of water discharged by the river, includes a waste of many thousands of acres, which, during the dry season, are so many dreary sand-banks, miles in extent, which are drifted by the winds, to the annoyance of every living creature in their vicinity. Nor is this all; the soil of this province is a dark, sandy loam, fourteen, and in some places twenty feet deep; which offers but feeble re-

ſiſtance to the conſtant action of ſuch a ſtream of water. Wherever a bank of ſuch materials is oppoſed to the current, it is conſtantly eating it away; large portions of the ſoil you hear as you paſs along, falling with a loud noiſe into the water; and if your boat happens unfortunately to be carried by the ſtream under one of theſe banks, you are in danger of being buried under its weight. It is true, indeed, that a portion of land, equal to that deſtroyed, is beginning to appear on the oppoſite ſhore; but this is merely a bed of barren ſand, which the progreſs of vegetation, for many years, is incapable to cover with ſufficient ſoil for the purpoſes of huſbandry.

The changes produced on the province of Bengal by the conſtant action of ſo immenſe a river, during the lapſe of the many centuries which it is known to have been inhabited, muſt be far greater than can at firſt be imagined. There is unqueſtionable evidence, that the whole maſs of ſoil to a great depth, over many hundred miles, is a congeries of clay, ſand, earth, and vegetable ſubſtances, waſhed down from the vaſt ranges of mountains in the interior of Aſia. In this operation, however, it has been powerfully aſſiſted by the ſtream of the Bharampooter, a river of equal magnitude, which riſes on the ſame ridge of mountains; and though divided in part of its courſe from the Ganges, to a diſtance of not leſs than two thouſand miles, it again approaches it, and for ſeveral hundred miles towards its termination, waters the ſame plains. That the provinces of Bengal have been

been gradually formed by materials depofited by thefe great rivers, appears from the nature and ftrata of the foil, and the prefent ftate of the lower part of that kingdom.

THERE have been found at the depth of twenty, or thirty feet, the wreck of boats, their anchors, and other implements, which feem to have been funk in fome remote period, when the foil was lower, or when this vaft plain made a part of the fea. Shells are frequently feen when you penetrate deep into the ground, which appear to have been formerly depofited by the fea. Rotten wood, and vegetable matter, feems every where to conftitute a part of the foil; which to a great depth is of fo loofe a texture, as feems to evince its origin to have been mud depofited by water.

THAT extenfive and dreary tract, called the Sunder Bunds, confifting alternately of jungle and ftagnated water, which lies between the Hoogly and Chittagong, an extent of near three hundred miles, feems fo lately formed as fcarcely to be habitable, from its low pofition. It already furnifhes fire-wood for Calcutta, and fmall timber for domeftic ufes: the time feems to approach when it will be cleared, and brought into cultivation; a time when the tigers and boars, its only inhabitants at prefent, fhall give place to man, and yield up to his dominion a new territory, equal in extent and fertility to either of the

the three kingdoms that compofe the Empire of Britain in Europe.

Some fmall attempts have, I am informed, been already made to cultivate this inhofpitable wafte, and with no unfavourable profpect. But land almoft in every part of India is fo imperfectly occupied, that new acquifitions are of but little value, even though near the capital of our poffeffions, and ftill nearer to the fea. By fome it is deemed a matter of policy to have a defart of that extent lying between us and the only point of attack from an European enemy. But to lay wafte the furrounding territories, has never yet proved either a fecure or a lafting defence to any nation: maintain a force adequate to your protection, and your enemies will refpect your power; whereas the dread or difficulty of marching through a defart will readily at one period or another be overcome, if beyond that they are affured of victory. Should our naval power hereafter become decidedly inferior to that of any other European nation, the defarts of Chittagong will foon be found pervious to that nation, and will affuredly fail to fecure to us the empire of India.

CULTIVATION

CULTIVATION OF THE OIL PLANTS.

. . . .

Chandernagore, 1797.

No inconfiderable part of the crop in Bengal is applied to the production of oil: this article is not only in more general ufe than in Europe, but is alfo confumed in much greater quantity. The natives very commonly ufe it as an ingredient in their food: they burn it in their lamps; and they apply it as ointment for the fkin. In the laft mode of application, it lubricates and foftens the tegument, when parched by the fun, and feems to be a powerful protection againft his rays. It was this manner of ufing it, to which the Jews were accuftomed, and found fo refrefhing: if wine made their hearts glad, it was oil that made their faces to fhine. In illuftrating the delightful and happy effects of mutual love, one of the facred poets compares it to ointment poured on "the

" the beard," copiouſly and overflowing the whole body, to the " ſkirts of the garments."

For the ſupply of this favourite produce, ſeveral plants are here cultivated; Muſtard, Flax, the Ricinus Palma Chriſti, or Caſtor Oil plant, the Cocoa Nut tree, and many others.

The muſtard is the ſame with that which grows in Europe, but weaker in quality; a circumſtance which renders it ſo inſipid to Europeans, that conſiderable quantities are brought from Europe for the uſe of the table. After the ground has been ſufficiently reduced for this ſmall ſeed, it is ſown broadcaſt, and gently covered in with a harrow, or by ſcratching the mould with the branch of a tree. After this preparation the crop ſown makes its appearance ſeemingly in great abundance, and one of the moſt beautiful to the eye which the country affords.

The moſt luxuriant crops I have obſerved of this plant, were upon the banks of the river. When the ſtream ſubſides, in the month of October, large banks of dry and ſterile ſand are left in ſome parts, which the cultivator not only cannot turn to any account, but which prove by blowing or drifting, an annoyance to the adjacent fields: in other places, the river ſubſiding, leaves the farmer a more valuable bequeſt, in thoſe large ſtrata of ſoft mud, which probably conſtitute the richeſt of all ſoils. It

is

is upon these that he sows his mustard; and there too he commonly reaps the richest crops, without any cultivation at all; for all that is necessary is to cover in the seed, by drawing a branch over it, as already mentioned.

Another expedient for the production of oil, is growing the Sesamum orientale; a plant somewhat resembling hemp; but of a clean and semitransparent stalk, with a beautiful flower. So gaudy is the appearance of this crop, when in blossom, that you would at first imagine it had been cultivated for show, rather than use: and the fine aromatic flavour it diffuses, tends, on a nearer approach, rather to confirm, than remove your mistake. According to the account given by the natives, the oil produced by this vegetable, is that principally used in food. Its aromatic quality probably assists in preserving its sweetness, and must certainly add much to its relish

The mode of expressing oil from the seeds of the two foregoing plants, is by putting them into a large mortar, the pestle of which is turned by a bullock continually driven round the floor of the barn. The operation is nearly similar to that of bruising the sugar-cane.

One particular with regard to the crops upon the mud banks, struck me as deserving notice from its so nearly resembling what is said of the cultivation of some parts of Egypt, bordering on the Nile. The crops,

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in both inſtances, may be ſaid to be ſpontaneous: the flatneſs of the ſurface, too, is another point of ſtrong reſemblance. Water introduced at one corner of theſe banks of mud, may, by means of ſmall furrows, be conducted to every part of the field. For making ſuch a ſlender aqueduct, hardly any inſtrument is requiſite; the native, with his fingers or his toes, can conduct the ſtream. Such expreſſions in Scripture, as, " I will water thee with my *foot*;" which, to an European, appear perfectly incomprehenſible, acquire, here, an obvious ſignificance, and admit of an eaſy explanation.

The Cocoa-nut Tree, one of the moſt pictureſque, as well as the moſt uſeful, in the tropical regions, muſt not be omitted, in giving an account of methods practiſed in Bengal for procuring oil. In the foreſt the cocoa nut tree claims patrician rank: it is tall, perfectly ſtraight, and riſes perpendicularly the whole of its length, without a branch. On the top, it is crowned with a number of large branch-like leaves, which ſpread around in all directions, and are attached to the ſides of branches ſo ſlender, as to reſemble the ſtalk of a leguminous plant, rather than parts of a tree. At the roots of theſe branches hang the large nuts ſo well known in Europe, that they need no deſcription. The milk with which they are filled is palatable, and to the natives wholeſome. The edible part of the fruit is cloſely attached to the inſide of the ſhell, and to ſtomachs only habituated to vegetable diet it is very grateful, as well as nutritive: both

both the fruit and juice, when taken in quantity, have been found hurtful to Europeans: the latter, when allowed to remain in the nut till fermentation takes place, is intoxicating: ſome of the king's troops lately arrived, have, it is ſaid, been much injured by venturing upon too liberal draughts of it.

The ſtringy covering of this nut, bears a ſtrong reſemblance to oakum, and is, I am informed, ſometimes uſed for the ſame purpoſes. It affords alſo a material for coarſe mattings, and cables of good quality. The ſhell of the nut contains a very conſiderable quantity of a pure aromatic oil. The method of extracting it is by means of the common oil mill: a machine which illuſtrates the ſimplicity and rude ſtructure of all the Hindoo implements of huſbandry*. The Koalhoo, an oilman, is reckoned an impure perſon, and his ſhop a nuiſance like a dramſhop in Europe, by the Inſtitutes of Menu. The ſugar-mill, is little different in its conſtruction: it conſiſts merely of a large log of wood fixed in the ground, and hollowed out at the upper end, to receive a large mortar, which is turned by a couple of bullocks.

Among the oil plants, the Mahwah or Mawa, holds a diſtinguiſhed place; its Sanſcreet name is Madhuca, and belongs to the claſs of Polyandria monogynia of Linnæus,

* See the Repreſentation, Sect. I. No. 38.

Linnæus, but of a genus not described by him†. "The flowers of this tree (says Mr Hamilton) are of a nature very different from those of any other plant with which I am acquainted, as they have not in any respect the usual appearance of leaves; and I, like many others, had long conceived them to be the fruit of the Mahwah." When prepared by drying in the sun, they resemble dried grapes, both in taste and flavour.

The fruit, strictly so called, ripens in May, and drops in June; when the pericarpium commonly bursts; and when it does not, the seeds are very easily squeezed out of it. It is replete with a thick oil, resembling ghee; and being cheaper, the natives often mix it with that article. They use it for the same purposes as butter, or ghee, in their common food, and fuel for lamps. It is also regarded as a salutary medicine, and applied externally to wounds, and all cutaneous eruptions. From not being properly clarified in its first preparation, it is apt to acquire a disagreeable taste, and rancid smell; but even in this unsound state, as well as in its original form, it is exported to Patna, and other districts of the low country.

THIS

† For a full description of the Mawca, the reader may consult the Asiatic Researches, Vol. I. page 200. in a paper by Lieut. Hamilton.

This tree in the ſpring ſeaſon, is replete with a gum, which may probably be found to ſerve many uſeful purpoſes; and the wood muſt be very ſerviceable in building, if it be true that it is not liable to be eaten by the white ants. It will grow in the moſt barren grounds, even among ſtones and gravel, where there is hardly any appearance of ſoil. It does not, however, refuſe a richer ſoil; for Mr Keer has obſerved ſome at Buxar, where the ſoil is better, that were much taller, and more thriving, than in the poorer ſoils of Ramgur.

What is peculiar in the Mahwah tree, it does not require much moiſture; but ſeems to produce nearly as well in the drieſt as in the moſt favourable years; and in every ſituation: it is, therefore, admirably fitted for the convenience of the inhabitants of theſe hilly diſtricts, which are peculiarly ſubject to long and ſevere droughts during the hot months.

The oil-plants, and particularly the Palmachriſti, occupy a great proportion of the land and labour of the farmer; which, by the more general culture of the Mahwah, might, in all probability, be ſpared for other purpoſes. The far greater part of the hilly diſtricts, ſeem hardly fit to yield any other uſeful production: yet, notwithſtanding its utility, and the vaſt quantity of ground only fit for its production, Mr Hamilton obſerves, that you very ſeldom ſee this tree in an early ſtate. Every where full-grown trees are ſeen near

near the villages: a proof, that many more have been cultivated in former times.

A good Mahwah-tree will yield 300 weight of dried flowers, of the value of two rupees: of the seeds it will yield about 150lb. producing 50lb. of oil, worth, in the cheaper years, about two rupees. Allowing one-half of this to be the average produce of a tree, and with careful cultivation it might be more in the space of ten or fifteen years, an immense additional subsistence, might be raised for the inhabitants, and a considerable revenue to the Zemindars, and to government, upon lands little better than a desart, yielding at present nothing either to the farmer or the state.

These ideas are the more plausible, when we consider the great difficulty of raising many of the oil crops, particularly the palmachristi, which grows to the thickness of a man's arm, and must be cut down with an ax, instead of a sickle. When this forest-like crop is removed, a new process, that of grubbing up the roots with the hoe, is necessary before the ground can be submitted to cultivation. This operation resembles the grubbing of *whins*, and must be equally difficult and expensive.

THE

THE CULTURE OF THE INDIGO PLANT, INDIGOFERA *TINCTORIA*.

....

Kissengunge, 1797.

My stay at this place, and my progress towards it, during a journey of three hundred miles, have afforded some opportunities of examining the culture of the indigo plant, and the process of its manufacture. The name of this drug seems to imply that it was known anciently in Hindostan, and Tavernier mentions it in his time as common; in fact the Romans were supplied with it from this quarter; but after the discovery of America, Europeans began to cultivate indigo there, and engrossed the whole market of Europe. No competition can probably long exist between them and the natives: their enterprise, skill, and industry, soon procure them a decided advantage. The Indians, however, save much in capital. They carry on the manufacture without the

the expence of any one houſe whatever. The plant is ſteeped in large jars in the open air.

The late rapid extenſion of the indigo trade is to be aſcribed to that ſpirit of enterpriſe which diſtinguiſhes every claſs of Europeans, who venture to purchaſe independence at the expence of a diſtant voyage, and the riſk of a hoſtile climate. It was at firſt undertaken from the general motives of adding to the induſtry of the country, and of improving their private fortunes. Any project, even of moderate plauſibility, had, in ſuch hands, a certainty of being commenced at leaſt with ſpirit and activity.

Accordingly, for ſeveral years, during the late peace, the manufacture of indigo was begun with ardour, and attended with conſiderable ſucceſs. But it derived its complete eſtabliſhment and ſtability in India from a ſource which, at that period, was altogether unforeſeen; the devaſtations in the Weſt Indies, and the Spaniſh war. At the beginning of this undertaking, and during the inexperience of Euroropeans, added to the unſkilfulneſs of the natives, this article had to enter the European market in competition with the French and Spaniſh indigo in the height of an abundance, that aroſe from extenſive capitals, and matured experience. In ſuch unpromiſing circumſtances, the introduction of a new manufacture into India could not have been ſucceſsful, had the execution of it fallen to leſs able hands.

At

At length that ſpirit of Republican anarchy, which in Europe had been ſo fatal to life and property in every diſtrict which it pervaded, reached the Weſt Indies. It has there been attended not only with the uſual conflagrations, murders, and rapine; but by putting an end to all induſtry, it ſeemed to rob the ſoil of its produce. The large and populous iſland of St. Domingo, that formerly yielded a produce nearly as great as that of all the reſt of the Weſt Indies, has been almoſt wholly deſtroyed by the too ardent heat of this new fanaticiſm.

The exportation of indigo, as well as of every other produce from this iſland, muſt, for many years, prove inconſiderable. In the mean time, the culture and manufacture of this plant has attained to ſuch a degree of perfection, that no future efforts of the French cultivators will ever place them on the ſame advantageous footing.

A greater quantity of indigo has, for ſome years paſt, been produced within the Company's territories than the ſupply of the European market ever yet did, or perhaps ever will demand. The price of the article has accordingly fallen; and while the ſame ſuperabundance continues, it muſt fall. The ardour of ſpeculation has outdone its end: and much capital muſt be unprofitably ſunk, till the ſupply becomes proportioned to the demand; and this branch of induſtry, at preſent overſtrained, reſumes its poſture on the general level with every other.

A great number of indigo works have ſtopped, on the failure of their owners: the conſequence of this has already been a diminution of the quantity brought to market; and an increaſe of the price. Such as have ſtood out this difficult period, may perhaps ſucceed better than if no embarraſſment had been ever felt.

INDIGO, from the very nature of the commodity, muſt always be limited in its demand; ſince the increaſe of manufactures in Europe can only augment it to a certain extent: when, therefore, the quantity exported from Bengal, ſmall in its commencement, increaſed rapidly to the amount of two, three, or four millions of pounds annually, as it is ſaid to have done for ſome years paſt, the price muſt inevitably fall.

THE ſtagnation of the ſales in Europe; the failure of remittances from that quarter; and the conſequent alarms and embarraſſments of the indigo traders here; are the natural reſult of the exceſs in the quantity brought to ſale: inſtead of occaſioning ſurpriſe among the parties concerned, they ſhould have expected it; and inſtead of foreboding the overthrow of this manufacture, it affords a very ſtrong proof of its proſperity.

ONE circumſtance which renders this country peculiarly fitted for the culture of indigo, is the immenſe tracts of land that are at preſent waſte, or under

der a very imperfect cultivation. The weed manufactured at one complete work, requires several thousand acres to raise it: and in this respect India offers a field for the cultivation of it far more extensive than the islands of the Western Archipelago.

The most general method adopted by the indigo manufacturers for procuring the weed, is agreeing with the natives for what quantity of the plant they can produce, and bring to the work, at a fixed price. One half of the money must be paid them in advance, to enable them to subsist during the culture of the field, and the growth of the plant, till fit for use. No undertaking, however small, can be begun by the Ryut. He has no stock, and cannot proceed a single step without immediate assistance. The produce of an acre of ground tolerably productive, does not yield, upon an average, more than from six to ten pounds of indigo, which, at the late prices, leaves a very inconsiderable sum for the rent, labour, and seed; after defraying the interest of capital, and the wages of labour necessary for its manufacture.

It is probable that the plant, like every other in India, is less productive than that raised in the other countries. This circumstance I have already had frequent occasion to notice; and if it does not take place in this instance, it will prove a departure from the general analogy that nature has established between the Asiatic and European plants.

In

In this country the price of labour is various; from one rupee per month, to four. I have been informed that the late rage for the cultivation of this plant, has in some provinces contributed considerably to raise it. The stop put to the sales in Europe, will soon diminish the quantity produced, and probably reduce the wages of the labourer to their former standard; a circumstance intimately connected with the prosperity of the country.

When the wages of the labourer are higher than his necessary support requires, he is found willing to work only a part of his time; and the quantity of productive labour is proportionably less over the whole country. The circumstances of the poor are not benefited by the alteration: they are oftener idle than before; and when idle they are not always innocently employed. The great advantage India possesses over almost every country, lies in the cheapness of labour, which enables it to afford its manufactured produce at a rate so low, in all foreign markets, as has hitherto defied competition.

As matters have hitherto stood, the labour of the Hindoo is reckoned only a sixth part of that of the African negro: and some important consequences are likely to result from this circumstance, as soon as a fair competition shall take place between other articles of produce of the East and West Indies. The wages of labourers at this branch have been at two, three, and four rupees per month: small as this may

appear,

appear, it is a large ſum, when compared to what is given to many of the hands employed in the manufacture of cotton: many of theſe, it is ſaid, labour for a ſum which hardly equals three farthings of our money.

After the indigo plant has been raiſed and carried to the work, it is put into a large vat, filled with water; where it is allowed to remain a ſufficient time to extract the colouring matter, by undergoing a fermentation. The heat of the weather muſt determine the number of hours neceſſary for this purpoſe; as it does with us in the *ſteeping* of flax and hemp.

It is obſerved, that the longer the plant continues in a ſtate of fermentation, the greater is the quantity of indigo produced: but it is heavy, and coarſe in quality. Of late the finer indigos only have been found marketable; and this has obliged the manufacturer to improve the fineneſs of the commodity, by ſhortening the period of fermentation.

The preciſe time of letting off the water to produce the greateſt quantity, and fineſt of the material, requires a minuteneſs of obſervation which experience alone can teach. Water thus impregnated with the colouring matter, and drawn off from the vatt into another large veſſel, is then beat by the natives, or rather churned, till it aſſumes a muddy and curdled appearance. In this part of the proceſs, another effort of diſcernment is neceſſary, to diſcover when the colouring

colouring matter is ſufficiently diſengaged from the water to allow it to ſubſide wholly to the bottom of the veſſel.

After the water has remained long enough to permit the depoſition of the indigo, it is then drawn off, and the commodity is dried, and packed up for the market. That we are not yet perfectly acquainted with the niceties of this proceſs, appears pretty evident, from the different reſults in circumſtances apparently the ſame. Let part of the ſame plant, that was manufactured yeſterday, be, to-day, infuſed in the ſame water, and heated as nearly as poſſible in a ſimilar manner, the quantity and quality of the produce ſhall probably turn out very different.

The ſtate of the weather has invariably an effect upon this manufacture: during a dry ſeaſon, the plant is always richer, and the produce more abundant. That which has grown on ſome ſoils, is much more valuable than the produce of others. The hiſtory of the indigo plant correſponds in theſe particulars pretty exactly with that of many other vegetables; but in its uncertainty as a productive crop, it far ſurpaſſes them all. A planter, whoſe crops to-day are rich and abundant; whoſe expectations of a profitable return, ſeem perfectly ſecure and reaſonable; may awaken to-morrow, to behold all his hopes completely blaſted: a ſtorm of wind, accompanied with rain and large hailſtones, as completely ruins his crop, as if it had been devoured by the locuſt. From this latter

latter calamity the indigo planter is not exempted in any part of Bengal. At the period I am writing, the newſpapers announce the deſtruction of large fields of indigo all over the diſtricts of Patna and Benares. The fluctuation of the European markets had, for ſome years paſt, added greatly to this uncertainty of the condition of a planter: the ſtate of his finances ſomewhat reſembles that of a gameſter; and it has, of late, been deemed equally precarious to lend him money.

After all theſe diſadvantages attending this branch of buſineſs in India, it ſeems too firmly eſtabliſhed ever to be overthrown: the moſt diſcerning merchants are, on the contrary, looking forward, with ſome certainty, to a period when, from its quality and cheapneſs, the Bengal indigo will preclude all competition in the market of Europe.

Those who contend that the prejudices of the Hindoos, and their attachment to cuſtom, will for ever prevent all improvements in their agriculture; or preclude the introduction of any new branch into their manufactures, carefully conceal the hiſtory of the indigo plant; and the culture of the potatoe. Opinions merely theoretical are ever beſt ſupported by ambiguous facts of ancient date; or ſubtilty of argument: the rapid introduction, and the proſperity of the indigo manufacture, preſents facts too recent, and too notoriouſly inſurmountable, to render this opinion tenable by any perſon who candidly weighs them.

them. If in one or two particulars we have undeniably benefited the natives, it requires no great ſtretch of apprehenſion to conceive, that, by repeated attempts, ſtill other methods may be deviſed of adding to their comforts, and increaſing our own.

CUCUM-

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Mahunge, 1797.

THIS paſſage of country diſplays a greater abundance and variety of eſculent plants, than I have elſewhere obſerved. The different ſpecies of the cucumber are much more numerous than in Europe. Here whole fields are planted with them; and from the rapidity of their growth, and their facility in propagating themſelves by creeping along, and puſhing down new roots, the field ſoon becomes completely matted. No other crop can ſucceed this vegetable till its *haum* is ſtripped away, and the ſoil laid bare. Were the ſlender plough put into it, before this operation, it would be choaked by the immenſe quantity of rubbiſh upon the ſurface.

THIS crop, which the Bengalese call [illegible] not very grateful to the eye, eſpecially when the

leaves begin to decay, as they do at preſent; but if not beautiful it is extremely uſeful; for you daily ſee the natives uſing it as a curry ſtuff. It would indeed perhaps be eaſier to enumerate the eſculent plants they reject, than thoſe they admit into that ſtanding diſh both of the Hindoos and Moors. It is a miſcellaneous compoſition of leaves, cucumbers, onions, potatoes, and in ſhort, of almoſt every plant within their reach.

This they devour with much avidity, and in great quantities: their partiality for it ſeems to reſemble that craving which our countrymen diſcover for *hotch potch*; another multifarious mixture of every vegetable in the garden. A ſpecies of cucumber, met with in gardens here, is from eight to ten inches long; a very ſhewy vegetable, but remarkably ſoft, and nauſeous as a diſh at table.

The water melon, which I have elſewhere mentioned, is here of incredible ſize; its ſtalk leaves and bloſſoms form a delightfully variegated matting, with which moſt of the native cots in this village are entirely covered. A village decorated in this manner, gives an European an idea of plenty, and of luxuriance of vegetation, which pleaſes the imagination; becauſes it relieves it from thoſe impreſſions of poverty, which the nakedneſs of the people, and the meanneſs of their houſes, are apt to create. The habitation of a Hindoo, mantled with this plant, and loaded with its enormous fruit, poſſeſſes an air

of

of plenty, and of rural ſimplicity, of which no European cottage can boaſt; for the largeſt fruit with you would appear beggarly if compared with this melon. This fruit the natives turn to better account than decoration; it affords them a comfortable refreſhment; upon European tables it is chiefly prized as an article of ſhew; as part of food it has never been in high eſtimation.

Amidst ſuch an abundant ſupply of vegetable food for themſelves, the natives merit no commendation, in providing for their cattle. The common paſture is very miſerable in quality, and often defective in point of quantity; yet graſs or ſtraw is almoſt the only food of working cattle. I have here met with another frugiferous plant which reſembles hemp, when about half its height. The grain produced by this vegetable, is called by the natives Kelai, and is given to the horſes after having been boiled. This affords by no means a general ſupply; for I do not remember to have once ſeen it in Calcutta, where the horſes are kept with the greateſt care of any part of India.

A European here continually regrets the want of artificial food for cattle; and particularly that of the graſſes; without which agriculture can in no country be ſaid to have attained half its perfection.

The graſs totally diſappears in ſome places during the hot winds; at that ſeaſon horſes are fed by cutting

ting the roots of graſs below ground, which are waſhed, and afford excellent food. Artificial graſſes would, perhaps, not outlive the hot winds, that fatal ſcourge of Indian paſture.

The present time is, perhaps, the moſt favourable the Engliſh ever enjoyed for attempting the introduction of that improvement. From poſſeſſing the Cape of Good Hope, a ſupply of freſh ſeeds might be procured, with far greater certainty than immediately from England. The garden ſeeds from Europe, after a voyage of five or ſix months, are often ſo much damaged, as to prove altogether unfit for ſowing: and graſs ſeeds, from their peculiar ſmallneſs in ſize, muſt prove ſtill more liable to this accident. Experiments, it is ſaid, have been made of ſome of the artificial graſſes of Europe in this province; but ſo feebly and ill conducted, as to decide nothing, either for or againſt their introduction.

There is hardly a doubt, that Lucern, Vetches, Clover, and Ryegraſs, would prove abundant crops in the lower parts of Bengal; after diſcovering the proper ſoil and ſeaſon for ſowing them. Probably, the rapidity of their growth during the rains, would render them leſs nutritive than in their native ſoils; but even in that caſe, they would prove far ſuperior to the preſent food, either of horſes, or horned cattle. The truth is; Bengal is not more than half inhabited, either by man, or the uſeful animals. Whenever it arrives at its full complement of inhabitants, the preſent

present supplies will be found inadequate, and the introduction of grasses will then be set about as a work of necessity. So long as three or four rupees per month given to a grass-cutter, for each horse, will enable him to pilfer sufficient food for him in the neighbouring ditches, a farther supply is not perhaps very necessary: but what estimate are we to form of the number of horses in a country, where their sole food is the roots of grass picked from the tanks and ditches: what judgment are we to pronounce on the population of a province, where, in ordinary seasons, no art or sanction is necessary for providing the sustenance, either of man or beast?

It is unfortunate for this country, that almost every proposal for adding to the industry and comfort of the natives, meets with opposition and ridicule from a great proportion of the Europeans by whom its public affairs are guided. The exertions of the active and benevolent are, every where as well as here, a reproach to the indolent: but, unhappily, this is almost universally the vice of Europeans in India. In one or two instances only, do they show their usual activity, in accumulating money; or dissipating it, by extravagance. So far do they assume the character of the natives, that, whatever does not promise immediate gain or immediate pleasure, appears but of little importance.

It must, at the same time, be acknowledged, that some of the propositions of our countrymen, in fa-

vour

vour of the natives, have provoked ridicule by their abſurdity. It is related of a perſon, who came out with a very high appointment in the ſervice; that on firſt ſeeing the native females going down half naked, to bathe in the river, he expreſſed his hopes of beholding them, before his departure, dreſſed in gowns, ſtays, ſhoes, and ſtockings. Had this gentleman's ideas been carried into effect, his benevolent miſtake muſt have proved a ſerious calamity. A native of either ſex, in full European dreſs, feels all the reſtraint and awkwardneſs of a monkey; and, inſtead of being more comfortable, he is in danger of a fever, from bearing ſuch a load. Yet ſtill the dreſs of the natives might be improved: in the months of October and November, it is by far too light and partial. Perſpiration ſuddenly checked, as at this ſeaſon it often muſt be, affects their bowels with violent complaints, which carry them off in a greater proportion than Europeans. The moſt experienced phyſicians have at that period recommended additional cloathing. But ſo contradictory is this to the whole habits of the Hindoo, that it has hardly in any inſtance been complied with.

From the circumſtance above hinted at, much unmerited ridicule has been thrown upon ſeveral gentlemen now in India, deſervedly high in reputation. The diſſemination of the ſilk manufacture into different provinces; the introduction of the bread-fruit tree; and that of the cochineal inſect, afford no contemptible proofs either of the judgment with which

their

their improvements were planned, or the perſeverance with which they have been carried into execution.

HAD theſe gentlemen even failed in their attempts, they have the merit ſtill remaining, of tranſmitting to Europe more extenſive and accurate information regarding the condition of the natives of this vaſt peninſula, than any other perſons of the preſent times.

THE CULTIVATION OF THE MULBERRY.

....

Jungipore, Oct. 1798.

In proceeding with a detachment of the army by the Hoogley and the Ganges, I had further opportunity of enquiring after the different sorts of crop, and produce of agriculture. The month of October is in Bengal one season for sowing and planting several kinds of crops, particularly the European grains: during this month the mulberry is planted with most advantage. After the field has, by frequent ploughings, been reduced to a proper tilth, furrows are drawn at the distance of eighteen inches, or two feet; their depth from four to six inches. In these, small cuttings of the mulberry are planted, to the number of eight or ten in one pit. The longitudinal distance between two pits, is two feet, or nearly equal to the lateral distance of the furrows in which they are made. The earth after being well pressed down with

with the hand around the cutting, is then loofely fcattered over their tops, and the work is concluded. This operation requires a number of hands; fome ploughing; while others are employed cutting the fmall mulberry twigs into proper fize; others carry them upon the field, and place the proper number at the fide of each pit; while the operation of planting is begun at one fide of the field.

If the operations of the Hindoos in the field ever affume the appearance of activity or induftry, it is at this period, and at fuch proceffes as this. The weather, to their feelings, begins to be cold; and fome activity is neceffary to repel its attacks. The plough too feems to perform fomething refembling hufband-like labour: this, however, is owing to no fuperior ftrength of the implements or exertion of the cattle; but is folely to be afcribed to the greater foftnefs and friability of the mould, after frequent ftirrings.

Nothing can exceed the beauty of the mulberry, when it firft makes its appearance, in fmall clumps or ftools, above the parallel rows of pits in which it has been planted. The foil being then clean of weeds, the mulberry leaves give a rich, green, and bufhy appearance very grateful to the eye, on furveying a plantation of this kind. This plant is never allowed, in Bengal, to reach the fize of a fruit-bearing tree, when intended for the filk-worm. It rifes in a fhrub like form, fomewhat larger than a rafpberry bufh: it is then that the natives pick the

leaves, and carry them to the houſes in which the worms are fed for ſpinning. The care of the ſilk-worm, the collection of its food, and winning the ſilk, are operations requiring no effort of ſtrength, or bodily exertion, and on that account peculiarly ſuited to the genius of the indolent Bengaleſe.

If at this ſeaſon of the year, he be put to labour too inceſſant and fatiguing to admit of his ſmoaking his tobacco, he languiſhes, and ſhould a fever ſupervene, probably expires. On the banks you will ſee ſometimes two or three of them on the funeral pile at the ſame inſtant, and at no great diſtance from each other. The life of a native is here a ſhort and chequered ſcene. He has frequently at the end of his career more cauſe, than the venerable patriarch Jacob, to complain that his days "have been few and evil."

The growing of ſilk has been deemed a Chineſe invention; but as there are large quantities of wild ſilk gathered in India, probably it has, like indigo, been ſupplanted in the European market by Italian and French ſilk. The export of Bengal ſilk is however ſtill conſiderable, though in quality it is reckoned inferior to European produce. Perhaps this branch of agriculture never attained to any great degree of perfection; for we know from the Roman hiſtorians, after they had acquired their utmoſt extent of Aſiatic territory, that this article continued invariably to bear a very high price in Rome. Its quality

lity too, was probably coarſe, as it is at preſent; at leaſt the uniform tenor in which the natives conduct every manufacture, leads to this concluſion *.

The cauſe of the coarſeneſs of Indian ſilks has not been ſo well aſcertained as the certainty of the fact. No naturaliſt of any eminence has examined the nature of the inſect ſufficiently, to diſcover where the defect originates. It may poſſibly be owing to the exceſſive moiſture, and heat of the climate, which communicates a watery inſipidity to every vegetable production; and which may, therefore, produce a mulberry leaf leſs nutritive than that of China or of Italy. The ſame cauſe may have enlarged the ſize of the inſect itſelf, or produced ſuch a relaxation of the parts employed in this function, as renders them incapable of forming a thread of the fineſt quality.

The manufacture of this article in Bengal, is carried on to a conſiderable extent. Many expenſive buildings have been erected for the purpoſe in different parts of the province. These are, in general, under the ſuperintendance of Europeans; for the natives, even when you continue to make them labour on their own account, carry it on invariably with little execution or diſpatch. Their principal excellence conſiſts in the ſmall expence, and the inconſiderable capital with which they conduct their operations,

* Vide Gibbon's Decline and Fall, &c.

rations. In this country, where the rate of intereſt is generally twelve per cent. and ſometimes much higher, this ſaving of capital operates powerfully in their favour. There are, at this moment, many inſtances in every part of Bengal, of Europeans, who, by ſinking an enormous capital in buildings, and implements, have incurred a debt, from which all their ingenuity, ſkill, and application, could never afterwards retrieve them.

The ſucceſs of a branch of manufacture, which affords labour and ſuſtenance to many thouſands of our fellow creatures, muſt be regarded as an intereſting object; but there are ſome departments in this labour for which you could have no partiality. The houſes in which the inſects are kept, are infeſted with a noiſome ſmell ariſing from the inſects themſelves, or their excrements, and rotten leaves: the heat of the ſtoves is an addition of no comfort in this climate. The populous village of Coſſimbazar, celebrated for an extenſive ſilk manufactory, has been, for many years, at leaſt equally infamous, for the deſtruction of the lives of vaſt numbers of the natives. It muſt be acknowledged, indeed, that upon inſtituting an enquiry into the cauſe of this mortality, it did not appear to be ſolely owing to this cauſe.

The inveſtment of the Company in ſilks, amounts annually to a conſiderable ſum: what is produced by private adventurers, and exported on their own

account,

account, cannot be eaſily aſcertained; but may perhaps be little inferior in quantity.

The natives are in general bad cuſtomers even for their own manufactures. Their vanity and taſte for ſhew exacts from them, however, a conſiderable ſum for ſilk ſtuffs. Fabrics of this material are uſed in ſeveral articles of dreſs among people of rank of both ſexes Their ſilk ſaſhes are remarkably expenſive and elegant. The ſame taſte is diſplayed in their ſhoes, which are made up of a very thick and rich ſtuff, embroidered in a ſplendid manner with ſilver and gold.

The different articles manufactured in ſilk; their quantity, and the number of hands employed in them, ſhall afterwards be more particularly detailed.

CULTIVATION OF THE DISTRICTS OF MONGHEER AND PATNA.

Mongheer, 1798.

THE agricultural operations put on a very different appearance here from what I have noticed any where in the flat country of Bengal. That large plain which conſtitutes this rich and extenſive province, is bounded on the eaſt by the Barrampooter; and on the weſt by the Ganges, or rather by the hills which confine it. A thouſand branches and intermediate ſtreams water the interjacent lands, which being uniformly on a level with them, imbibe moiſture, and preſerve perpetual verdure. On the exterior banks of theſe great rivers, the country riſes into gentle hills; which, as you advance, ſwell into high mountains.

THE land towards the bottom of the hills being above the level of both rivers, derives no fertility from them

them in any feafon of the year. In thefe diftricts, induftry fupplies this defect of natural moifture. Towards the end of the rains the fields are well plowed in the ordinary manner: but before fowing the feeds, they are divided into little fquare plots, refembling the chequers of a backgammon table. Each fquare is furrounded with a fhelving border, about four inches high, capable of containing water. Between the fquare chequers thus conftructed, fmall dykes are formed for conveying a rivulet over the whole field.

As foon as the water has ftood a fufficient time in one fquare to imbibe moifture, it is let off into the adjoining one, by opening a fmall outlet through the furrounding dyke. Thus one fquare after another is faturated, till the whole field, of whatever extent, is gone over. The fields watered in this manner, require a laborious preparation with the hoe, and even the hand, to conftruct the dyke and aqueducts: but their extreme beauty and fertility compenfates for the labour.

The fields in this neighbourhood are at prefent under this operation; and they refemble a flower-garden in neatnefs and beauty, rather than the coarfe operations of hufbandry A great variety of leguminous plants, muftard, caftor oil, as well as opium, barley, and other grain, are feen fpringing up in thefe little fquares, in the greateft regularity, and without a weed.

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The poppy for the opium is ſown on this ground, which ſeems more than any other crop, to require a careful cultivation.

The number of hands all buſy in different proceſſes of this work, gives an impreſſion of the induſtry of the cultivators of thoſe parts, which you in vain ſearch for among the Ryuts of the plain.

The very act of procuring ſufficient ſupplies of water is itſelf laborious. It is here drawn from wells, ſeveral of which are dug to a great depth on the top of every ſwell in the field. It is raiſed in large leathern bags, pulled up by two bullocks yoked to a rope. The cattle are not driven in a gin as ours; but retire away from the well, and return to its mouth, according as the bag is meant to be raiſed, or to deſcend. The rope is kept perpendicularly in the pit, by a pully, over which it runs.

From the mouth of the well thus placed, rivulets are formed to every part of a field; which, in this ſeaſon, becomes ſo parched, that a whole day may prove inſufficient to water it copiouſly. The operation, however, muſt, at ſhort intervals, be continually renewed, ſince no rain falls during the four enſuing months.

Grain in diſtricts ſituated like Mongheer, muſt be raiſed at thrice the expence with that produced in the plain: to me, therefore, it appears unaccountable, that

that ſo much of the rich deep loam of Bengal, ſhould be left in all the wildneſs of nature, while the riſing grounds are cultivated at ſo much expence of labour, and that too almoſt in the ſame neighbourhood.

But all here is managed with activity, and perſevering diligence. While the new crop is thus preparing in the field, the women are buſy in the houſes, grinding the former one in mills, and getting it fitted for the market, or for immediate uſe. Till this can be accompliſhed, it is kept in perfect preſervation, by being heaped up in ſmall round huts, conſtructed of reeds, and neatly thatched on the roof.

The culture of the diſtrict of Patna is far ſuperior to what you generally meet with in Bengal. For ſeveral miles around the adjoining villages of Bankipore and Dinapore, the fields aſſume the appearance of a rich and well dreſſed garden. Every part of the country is now beginning to be parched with drought; and here the operation of watering the fields is caried on with perſeverance and ſpirit.

Each well is ſupplied with a number of hands, who labour the whole day drawing water to ſupply the rivulets, by which it is conveyed through all the adjacent fields. The ſurface of the ground in this flat part of the province of Bahar, does not riſe more than thirty feet above the level of the Ganges; and in many places its elevation is ſtill more, inconſiderable. Hence the water in each reſervoir is perhaps

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not more than two or three fathoms from the surface: and the means ufed for raifing it to that height are extremely fimple. Two long bamboos are raifed upon a frame about ten or twelve feet, thefe are wrought like levers by a weight attached to one end, as the moving power which raifes the leathern bags to the mouth of the well. A man's ftrength pulling down the rope is neceffary again to fink them for each fupply.

These erections you fee at every two or three hundred yards as you pafs along the road; while the chequered fields on each fide of it, put on a moft luxuriant and rich appearance. The moft common crops are cotton, dohl, and the caftor oil plant: the latter rifes to the height of a large fhrub; and fhelters below its broad leaves the dohl, and cotton fhrub. Thefe three articles are frequently blended together, and their joint produce muft prove very confiderable, as they feem each an abundant crop.

Barley alone, or mixed with a kind of fmall pea, is alfo a very common produce in this vicinity. Very extenfive fields are now preparing for it; and there are many more where it is already fown, and has rifen a few inches above the ground. This grain is expofed in great quantity for fale in the Bazars; but it feems not to be of equal fize or plumpnefs with the growth of Britain. Behar muft prove too warm a climate for this grain, as it certainly is found to be for oats. Wheat, however, is excellent

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in quality, and is ſaid to be abundant. Forty ſmall loaves, about the ſize of our penny bread, are ſold for a rupee; their quality is perhaps ſuperior to what is generally met with in England. Wheaten bread is therefore much cheaper here than in Britain; though it be more expenſive than any other farinaceous food, and therefore not generally uſed by the natives.

ALMOST every common article of food is here remarkably cheap; fowls from ſix to ten a rupee; and ducks at nearly the ſame price. Turkeys, though cheaper than in Calcutta, are ſix rupees each; a circumſtance which ſeems to evince a degree of improvident indolence in the natives, bordering on ſtupidity. In this climate that bird is not ſo difficult to rear as it is in Europe. A woman therefore, who, in a year, could breed, and bring an hundred to the market, would ſecure an independent fortune to her family for the reſt of her days: ſhe would receive ſix hundred rupees; a ſum which, at the common rate of intereſt, yields ſix rupees per month, an income ſufficient for the maintenance of a pretty large family. From this, though you deduct a plentiful allowance for grain, there will ſtill remain a ſufficient profit to ſtimulate the indolence of any being but a Hindoo.

THE retail price of gram in the Bazar is only one rupee for ſixty-four Engliſh pounds, or thirty ſeer; while rice and dohl are ſomewhat lower. These prices

prices are noted here, as the present season is neither remarkable for scarcity nor abundance; and as the town of Patna is perhaps the most central part of our territories in this part of India, it must have an influence upon the whole.

DINAPORE, which lies about fourteen coss west of Bankipore, is a military cantonment built by the Company on the same elegant and magnificent scale with those at Berhampoor and Calcutta. It is so very extensive that every officer enjoys nearly three times the accommodation afforded by any of the barracks in England. The private soldiers are also provided with large and well aired lodgings; but the troops belonging to the native battalions are quartered in small huts a little superior to those of the natives. To them, this instead of a hardship is a luxury; for their former condition is not forgotten, when they were not lodged so comfortably.

AT Moneer, about six miles farther up the river, the Company has also erected cantonments for cavalry, equally commodious. The concourse of Europeans at these two stations, and at Bankipore, has probably a considerable effect upon the markets; for it is universally allowed that they are charged higher than the natives for every article. It is indeed the interest of all the black servants they employ in purchasing necessaries in the Bazar, that the price should be high, as in that case there is

more

more room left for their *dustour* *, which is a deduction of a part of the price from the merchant on paying his bill, and is claimed by the servant.

From this circumstance, the Bazar prices mentioned above, are to be considered rather above than below the standing rates paid by the natives.

Whatever enhances the value of produce, necessarily rouses and invigorates the operations of agriculture; cultivation is accordingly very extensive in this district, and better conducted. The crops seem abundant; while many of the fields in the vicinity are adorned with excellent hedge-rows, interspersed with flowering shrubs, which give that peculiar richness and beauty to the scenery to be met with in tropical climates.

At Bankipore, one of the suburbs of Patna, the Honourable Company's civil servants reside. Their provincial court of appeal, its register and clerks; the zillah or criminal court; and the city court, with the commercial resident, collector, and other agents of the Company, compose a pretty numerous establishment, with liberal appointments. These Gentlemen, with the Officers of the King's and Com-

* Literally rendered *custom*, a perquisite of every black servant purchasing goods for his master.

Company's troops, conſtitute the ſociety at Patna, from which private traders, not in the ſervice, are excluded, agreeably to the etiquette of India, which has formerly been noticed.

DESCRIPTION

DESCRIPTION OF THE CITY, AND THE AGRICULTURE OF THE DISTRICT.

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Benares, 1798.

In our progreſs from Patna to Buxar, Gazipour, Benares, and Mirzapour, much cultivation, and a rich paſſage of country, preſents itſelf to the eye of the traveller: at the laſt mentioned place, however, his approbation muſt ceaſe: both ſides of the Ganges a little way above that village, are ſubject to the Nabob of Oude, whoſe territories, in defiance of the bounty of nature, diſplay an uniform ſterility.

Mirzapour is remarkable for the induſtry of the natives, who are here ſtimulated to exertion by a few active Europeans engaged in the indigo buſineſs; in the manufacture of a very durable carpetting, and in the raiſing and exporting of cotton, with ſeveral other branches of trade, which are all conducted with much enterprize, and conſiderable ſucceſs.

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There is here but little land employed in the culture of rice; and the present season is not the period of that crop. The prevailing articles of produce are barley, wheat, and several species of the pea. A small quantity of flax is raised on the skirts of almost every field for the sake of oil; its use as an article of clothing is not here understood. The most luxuriant and rich crop exhibited here at this season, is a mixture of the dohl plant with that of the castor oil and cotton plants. The two former rise from six to eight feet high; and are nevertheless outstripped by the *badgerrow*, another meagre kind of grain which makes a part of this mixed produce.

The barley is just coming into the ear, and is at present remarkably beautiful. Every field of it contains a mixture of gram or pease; and at the distance of six or ten feet there is planted a beautiful yellow flowering shrub, used in dying. The operation of reaping, at which the separation of these different articles is made, must prove both tedious and complicated. The atmosphere which is here at present so cold, that fires are very comfortable, becomes so heated for three months after March by the setting in of the hot winds, as to destroy all verdure. Those fields which at present wave with luxuriant crops are then scorched like a desart, and are covered with clouds of dust. So trying are the hot winds to every vegetable production, that older European inhabitants seem to think it would prove destructive to all our artificial grasses. This, however,

ever, is a matter which ought to be brought to the decision of experiment, and not left to opinion.

Turnips, radishes, and a variety of greens and garden stuffs, are raised here by the natives principally for Europeans, and exposed to sale in the Bazars: where you find all the various produce of the country neatly put up in baskets, and ready to be served out in any quantity.

The fort of Chunar is situated upon a freestone rock, several hundred feet high; as it is provided with guns on that side it completely commands the river, though it is probably of no great importance in a military point of view; but the prospect into the adjacent country from its summit, is one of the finest imaginable: below, the Ganges winds along in a magnificent stream: the woods, villages, and corn fields in all directions, form an admirable group; while the distant hills on the south communicate a grandeur to the scene that is seldom to be found in any country.

Within this fort the Company have large and well constructed magazines, in which is deposited a great quantity of ammunition, guns, carriages, and every kind of warlike stores. The town itself is a straggling collection of native huts, and European bungalows, without uniformity; and spreading into the country several miles. At certain seasons of the year Chunar is oppressively hot, and said to be very

unhealthy: indeed the European and Mahomedan burying grounds are ſcattered in every direction, and occupy nearly as much ground as the town itſelf.

In point of health, Benares muſt be ſtill more hoſtile: the ſtreets are only a few feet broad, confined with high buildings on each ſide, ſo that the rays of the ſun can hardly penetrate the bottom of the lanes, which are impervious to wind, and covered with cow-dung, foul water, and every kind of filth. That the plague ſhould occaſionally break out in eaſtern towns is unavoidable: here it is unknown, though you are rather ſurpriſed how human beings can ſupport life in ſuch a noxious atmoſphere.

At Benares the number of Europeans is very ſmall: a judge, regiſter, collector, with a few civil ſervants, conſtitute the whole of the Company's eſtabliſhment there; a few private merchants and planters make up the whole ſociety. Of natives, however, the number is great; and many of the bankers are the principal creditors of the India Company, and poſſeſs immenſe fortunes. The poor in Benares are ſtill more numerous, owing to the number of pilgrims who come from all parts to viſit ſo ſacred a place. In going into a moſque, thouſands crowded around us, ſoliciting charity with an importunity I never before witneſſed, and which I could not then reſiſt. Hunger, wretchedneſs, and diſeaſe

ſeemed

ſeemed to meet your eye in every direction: what increaſed our uneaſineſs was the impoſſibility of affording any relief to ſuch crowds; where famiſhed multitudes preſſed forward to ſucceed ſuch as you had ſent away with a pittance of ſupply. It is not any ſcarcity, or any extraordinary degree of poverty that occaſions this concourſe of beggars, but the number of pilgrims who come from all parts for the purpoſe of devotion and charity: and wherever there is a fund for the poor, there will in every country be found a ſufficient number to conſume it: begging, hard as it ſeems, is ſtill eaſier than labour; and where it anſwers the ſame purpoſe, that of ſubſiſtence, it will often be preferred.

The celebrated ſeminaries of Hindoo learning in this place, have been mentioned by almoſt every writer on the ſtate of Hindoſtan, and for that reaſon I entirely omit them, from a conviction that their fame has been raiſed far beyond the ſtandard of their merit. They ſeem at preſent to be in a pitiful and languiſhing condition. The grand Mahommedan moſque built by the fanatical Aurengzebe, on the ruins of a Hindoo temple, has lately been repaired by Mr Haſtings, and conſtitutes an immenſe irregular pile of building, with which I know nothing to compare it. There are certain libraries of Sanſcreet books, which are now acceſſible to Captain Wilford, Mr Wilkins, and other Europeans, who are acquiring a knowledge of that language; but it will probably ſoon be found that our hopes of acquiring

knowledge

knowledge from that quarter have been too ſanguine.

Of the population of Bénares, I am unable even to form a conjecture: the ſtreets are ſo narrow, and the buildings crowded to ſuch a degree that you can have no conception of the number of people they contain: they are two, three, and four floors in height, which you ſeldom meet with in the dwellings of natives. The province, which obtains its name from the town, although ſometimes roughly treated, ſince its connection with the Britiſh, is at preſent in a ſtate of great proſperity, when compared with the diſtricts north of it. So great is the ferocity, and ſtate of deſperation to which the Vizier's ſubjects are reduced, that they frequently make excurſions, and plunder the neighbouring villages. Treated always with injuſtice and rapacity, they ſeem to have loſt in a great meaſure their ſenſe of right and wrong, and ſcruple not to behave to their neighbours in the ſame barbarous manner that their ſuperiors treat them. A brutal *aumil*, on a farmer's inability to pay his rent, ſeizes all his effects, even his wife and children; and has ſometimes been known to burn the unfortunate object of his vengeance in the flames. With ſuch examples of ferocity continually diſplayed by their rulers, what can be expected of the people? they are ſtrangers to every principle of juſtice and of mercy.

WHEN

When employed in viewing the curiofities of Benares, I received a letter from London, acquainting me with the fate of the miffion intended to be fent to this *mint* of heathen fuperftition: it feems the members of it were refufed permiffion to fail for India by the Court of Directors, from an apprehenfion that they would mix politics with religion. In all probability the idea was juft: perfons incapable of obferving a peaceable conduct at home, are of all men the moft unlikely to propagate the doctrines of peace and forbearance in India. With regard to the natives, it is probable that their doctrines would have no effect whatever; that fteadfaftnefs of faith, or obftinacy in error, which enabled the Hindoos to refift every effort of Mahommedan zeal, is not likely to be moved by the myfterious jargon of our femi-political divines. The inftruction of youth is at all times worthy of attention; but I do not learn that this entered much into any of the plans adopted by thefe wife men. I have already, if I remember right, given you my ideas upon this fubject; and I have only to add that I conceive this meafure to be one of the moft chimerical and vifionary ever attempted. Happily for the projectors, they have been ftopped at an early period of their progrefs before they had an opportunity of difplaying the whole extent of their folly.

What impreffion the harrangues of a fet of men entirely idle, and noted for their difcontents at Government, might have on the civil and military fervants

vants of the Company, I pretend not to ſay ; it is probable that in this line their labours might not prove ſo abortive as in converting the Hindoos.

The education given at Benares is chiefly inſtituted for the Brahmins ; that of the common people is extremely limited, but to them highly uſeful, and obtained at no great expence. Almoſt in every village there is a perſon employed in teaching the youth to read and write. As few books are entruſted to the peruſal of the great body of the people, the amount of their learning is to form the characters, and to read manuſcript ; and it is ſurpriſing how many, even of the loweſt ſervants, are able to keep accounts. I have found a Muſſulman capable of this who could not read a ſentence of the Coran. Here writing and reading are taught at the ſame time ; the boys are collected upon a ſmooth flat of ſand, and with the finger or a ſmall reed form the letters there, which they learn to pronounce at the ſame time. As often as the ſpace before each ſcholar is filled up with writing, it is effaced, and prepared for a new leſſon : thus the expence of both pens, ink, paper, and even a houſe, is avoided.

ON FARM MANAGEMENT IN THE DISTRICT OF BENARES.

....

Benares, July 29, 1798.

I AM abundantly sensible, that by persons of much practical knowledge of the subject, I must have been convicted of keeping too much to generals in my description of the Hindoo farming. The truth is, it is seldom safe for an European to do otherwise. There are few opportunities of getting a complete enumeration of facts from any farmer here: they are miserably poor, and ignorant: we are generally equally unqualified, by our want of language, to draw from them what little information they might be able to give.

FORTUNATELY I have met here with a very intelligent Soubadar†, in the Hon. Company's service; who,

† Ram Jeet Sing.

who, from his knowledge of the English language, has assisted me to meet, I will not say to overcome, this difficulty. His estate lies upon the Dergauatic river; about 36 miles from Benares, and consists of 4000 Cutcha Biggahs, or 1500 pukka, equal to 500 acres. The annual rent he pays to government is 900 rupees; and according to the present mode of letting, his own gains should annually consist of 100 rupees, at present about 12 pounds of our money. Such are the profits of the farmer of five hundred acres to a man of rank who has under him several hundreds of Ryuts and tradesmen. Government is therefore, according to all our ideas, the proprietor; and this gentleman, who fancies himself the owner of an estate, is in truth a factor for the Company, with an allowance of ten per cent. for collecting its rents.

Thus you observe, that nine-tenths of all the rent of Bengal and the provinces constitute the revenue of the Company; who are, in room of the Emperor, the true proprietors of the soil. That so vast a tract of country, naturally the most fertile, should yield so small a sum as the known revenue, ought, beyond all I am able to write, to convince you of the wretched state of agriculture in India. Lands of a similar quality with those I am now giving you an account of, would, with the worst husbandry practised in any part of Britain, yield more than five times the sum!

Of this estate nine hundred pukka biggahs are under the plough: and the crops are barley, wheat, pease,

peafe, cotton, fugar, muftard, flax, and rice. The quantity of grain applied as feed, is eftimated by the feer, which is either pukka or cutcha, correfponding to the two kinds of fquare meafurement. To a cutcha biggah of wheat twenty cutcha feer of feed is the common allowance; while double the quantity, or 30 feer, of barley is the neceffary proportion of that grain; and fifteen feer the ordinary allowance for a rice field.

In fome cafes rice is tranfplanted, after its removal from the field in which it was fown. In fuch inftances about three times the quantity of feed ufually given is thrown upon a fmall fpace in the corner of the field: there it remains till it has rifen about twelve inches in height; when it is taken up by the root, and planted in the field which is then covered with about three inches of water. This is the grand feafon of bufinefs with an Hindoo farmer, when his concerns abforb thofe of every other man's belonging to his community. He has then a prefcriptive right, eftablifhed by the practice and ufage of fome thoufands of years, to call out not only all the artifts of the village, but their women and children, to his affiftance, though the hurry of bufinefs fhould continue a week or two.

In one of the Weftern Ifles of Scotland, which you have feen, it is faid that all the inhabitants turn out in the fpring, and unite their labour in tilling the ground. In that mountainous fpot the operation

muſt be performed with hoes, ſpades, or pointed ſticks, becauſe no cattle there can drag a plough. The buſtle, jollity, and confuſion which then obtains gives a freſh animation to the ruſtics, in this operation, which they in their jargon call the *Grand Powter*. Planting a rice-field near a village is the *grand powter* of the Hindoo peaſants; when they diſplay a degree of alertneſs and vivacity, which, for a while, overcomes the phlegmatic indolence of the race.

The grain being thus planted, an additional ſupply of water is let into the field, to accelerate its growth, or rather to enſure its taking root. This water, after ſtanding a few days, is drawn off, and a freſh ſupply let in; but the neceſſity of this meaſure I have not been yet able to learn. So rapid is the progreſs of vegetation in Behar, that the firſt harveſt comes on in two months after planting the crop: the ſecond is reaped in November, and having been planted in Auguſt, may eaſily ſucceed on the ſame field. This is commonly a finer ſpecies of rice, and conſtitutes the moſt valuable crop, upon the ſucceſs or failure of which the circumſtances of the farmer, and of the country, in a great meaſure depend.

By what I have here and elſewhere ſubmitted to you, you will obſerve, that there are three harveſts in this part of India; two of rice in the ſummer and autumn, and one in the ſpring, conſiſting of wheat, barley, and peaſe. Should, therefore, the improvident indolence of the farmer, an adverſe ſeaſon, or the hoſtili-

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ty of the Ganges, disappoint his hopes, he has still an opportunity, by new efforts, of retrieving his affairs— The season, a second and third time, not only invites him to the measure, but powerfully seconds his endeavours.

The reaper has in this part of the country his labour paid for in kind: when employed in cutting the more valuable grains, as wheat and barley, he receives for his wages the twentieth sheaf; of the coarser kinds, he claims the tenth part. This tithing sheaf is selected by the reaper himself and the ryut alternately.

Rice and barley, with the various kinds of the pea are, either separately or mixed, the grand support of the labouring poor. Wheat is raised and sold for the use only of the higher ranks; even barley is too expensive for their daily fare: and, for that reason, its flour is mixed with that of pease when used by the common people. Fried grains, ground by a hand-mill, day by day, and made into a kind of porridge, is held the most substantial diet a peasant can aspire to: this he may mix with vegetables and spices which are cheap. Even the finer sorts of rice are raised for the market, for it is of the coarser only that the labourer's earnings will allow him to partake.

Such is the lot of millions of the most useful of mankind: their house and cloathing would not fetch

for

for a rupee; and their higheſt luxury is a mixture of grain, which they can hardly afford to ſeaſon with as much ſalt as you may hold between the finger and thumb. With you the poor are diſcontented if they can get fleſh-meat and tea only once or twice a-day: they wring your heart with pity, if they are reduced to the neceſſity of drinking water for a few days. Millions here have taſted no other beverage from their entering upon life till their exit; and of this circumſtance they never complain, becauſe it would be treated as ridiculous. What pity is it that your malcontents will neither liſten to the ſufferings of others, nor enjoy the advantages belonging to themſelves; though by ſuch diſcontents national benefits are loſt, and miſery is incurred!

Virgil never ſaw a peaſantry half ſo plentifully ſupplied as the Engliſh; and in fact, there were few worſe than his own: I may ſurely apply to your cultivators what he has ſaid of the Roman ſlaves:

O fortunatos nimium ſua ſi bona nôrunt
Agricolas!

When I wrote you from Benares an account of the Sugar Harveſt, the ſeaſon did not afford me an opportunity of deſcribing the manner of raiſing that crop. The cane is planted in January, by burying ſmall cuttings of about 12 inches each, that are taken from a ſmall portion kept for ſeed—One cutcha big-ha requires four hundred ſuch cuttings; and muſt be

be watered from four to six times before the commencement of the rains. After each watering the soil becomes hard and clayey, and must be rendered friable by the hoe twice during each interval. Bengal, from its peculiar moisture, does not subject the farmer to these costly operations. On further experience it will be found the most favourable country for this kind of produce that is yet known.

In this neighbourhood the fertility of the soil, great as it certainly is, will not admit of a succession of sugar crops. The land must be relieved for a year or two with other grain, before the sugar can be a second time produced. Sugar lands, I find, yield the highest rent; being let, on an average, at two [illegible] cutcha biggah, or about two pounds an acre—The average produce is said to be from fifteen to thirty mauns [illegible]h biggah. Four different kinds of the sugar cane are distinguished by our planters, and of different degrees of estimation. The China sugar has hitherto been preferred to that of Bengal; but it chiefly derives its excellence from a more skillful mode of purifying it practised in that country. On this account, an attempt was made by Mr Crawford at Chipsagur, to introduce the Chinese sugar culture, and the whole process of refining by a colony of natives of that country. This patriotic effort terminated like most others that had to compete with the cheap manufactures of Bengal. The expence of labour so much enhanced the price, that the Bengalese undersold it in every market.

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In this ſlight ſketch of the Hindoo agriculture you muſt beware of ſuppoſing, that the condition of the miſerable wretches is included who inhabit the hilly country and its jungles. They are as different from the inhabitants of the plain, as a North-Highland farmer is from one in Kent. They are in the ſtate of uncultivated nature: they neither plow nor ſow; what grain they raiſe is introduced into ſmall holes made with a peg and mallet, in a ſoil untouched by the plough. The only preparation given it is turning away the jungle, and thus depoſiting the ſeed. In the vicinity of Rajamahl there are many tribes of ſuch peaſants, who ſubſiſt partly by digging roots, and by killing birds, and noiſome reptiles.

In theſe ſavage diſtricts ninety villages have been let for two hundred rupees; and yet this paltry ſum could only be made up by fruits peculiar to the ſituation. All that I have ſaid of the indigence and humble fare of the other Ryuts is ſo far outdone by the condition of theſe beings, that I will not venture to lay before you the account I have received of them: the faith even of a true believer may be put to a trial too ſevere: and the teſtimony of a tolerable hiſtorian may be inſufficient to eſtabliſh facts ſo remote from the ordinary occurrences of life.

DESCRIPTION

DESCRIPTION OF A VILLAGE IN BENARES DISTRICT.

Benares, 1798.

THE mode of living, and the climate of India preclude Europeans, in a great meafure, from acquiring any intimate or minute knowledge of the manners of the natives. Unlefs I had made particular enquiry for the exprefs purpofe of laying before you the following account of a village, I might have remained in this country for half my life without any knowledge of the very partial detail which I now intend to prefent to you.

THE inhabitants of the fmall zemindary of which you lately had a defcription, live together in one village, which contains about one thoufand fouls; a population of nearly one perfon to each Scotch acre; and twelve individuals to each plough. The p...

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of working cattle on this property is four hundred; that of ploughs ninety.

After the Zemindar, the person next in rank and importance is the *Putwari*, the factor or keeper of accounts between the proprietor and tenants: he collects the rents whether in grain or in money, measures the ground, and in the absence of the Zemindar succeeds to any petty jurisdiction which the small society may require. In him you may recognize the Baron Bailie of Scotland: the salary of this officer is paid by the farmer at the rate of one seer and a half each for every hundred paid to the proprietor. Sugar, cotton, and other articles not consumed on the estate, pay a certain portion of their valued price to the landholder, and for each rupee paid to the landlord the Putwari receives half an ana, or the 1-30th part nearly.

The Byah, or weigher of grain, is the next to the Putwarri; this man divides the grain between the zemindar and the tenant by weight in their respective proportions. The Byah is paid by both parties at the rate of twelve seer for every hundred mauns.

From the mean habitations of the farmers, and their scanty and wretched implements of every kind, I had conceived that there were but little division of labour, and few profest tradesmen. Iron smiths and carpenters make two separate professions in the smallest village. A *Sochar* or master tradesman receives

ceives from each plough a maun of grain, consisting of a part of each sort. This is in the nature of a retaining fee, and must be paid annually over and above his allowance when actually employed in your house. As often as you have occasion for his services there, whether in constructing the building or making furniture, he is entitled to a daily allowance of one *pukka* or great seer of grain. During each of the three harvests he receives one sheaf of wheat, barley, or rice, according to the nature of the crop then reaped. This sheaf is not undefined in quantity, but consists of about three seer.

WHETHER it arises from indolence or superstition, I am unable to determine, that the poorest Hindoo families do not wash their own cloaths; it is certain however that each village retains a number of washermen as a distinct profession. The washerman receives from each plough twenty seer of grain annually; and three sheaves during the three harvests, as in the case of the other tradesmen already mentioned. The families of tradesmen, who have no plough, pay the washerman in specie at the rate of two annas yearly. A sum not exceeding four-pence of British money annually, is certainly a small allowance; but you will recollect that the quantity of clothing used by a family of Hindoo peasantry, is not the fortieth part of what is necessary for one of your tenants. The children, till they are ten or twelve, seldom put on any clothing at all; and after that season a small piece of cloth covering the middle of

the whole attire of the lords of the creation in this country. Washing to Europeans in this country is performed by a servant hired by each individual, at the rate of from eight to ten pounds annually, a very small sum, if you advert to the quantity of work. Here our whole dress is white cotton, and must on account of the heat of the climate be changed twice or thrice every day *.

The superstition of the country occasions another profession not common in your villages, that of a Shaver. Part of the beard, the arm-pits, &c. are regularly shaved even among the lowest classes. As one person in this capacity can accommodate a considerable number of individuals, his wages are settled at one ana, or two-pence sterling per annum; a plough giving twenty seer.

The greater part of cooking utensils, and vessels for holding water, are of earthen ware; several of these are in daily use in each family, and from their frangible nature the consumption of them is considerable. This occasions the trade of a potter to be universal in every village of the country. The potter receives from each plough his three sheaves in the three

* In some parts the washermen are entitled to five seer of grain for washing the child-bed linen at each birth. The washing is not performed within doors, nor by putting the clothes in vessels as in Europe; but at the side of a tank or river, and by striking them against a curved plank of wood.

three ſucceſſive harveſts; he is paid beſides for each pot according to its ſize; only the zemindar has his at half price, and cuſtom alſo obliges the potter to provide utenſils for ſoldiers, or ſuch travellers as may paſs the night in the village. Earthen pots are very common through all Aſia; and by what we read concerning the "potters field," they ſeem to have been in uſe in Judea, and to have had an allotment of ground for their manufacture. In India the ground is furniſhed by the proprietor, and for this reaſon he is ſupplied at an inferior price.

The loweſt, and moſt deſpiſed order of tradeſmen in India, are the *Chumars*, or leather-cutters. The Chumar receives in harveſt three ſheaves from each plough; but beſides this annual fee he is paid for every ſet of ropes or harneſs he furniſhes for a plough two ſeer and an half of grain. For each pair of ſhoes the cuſtomary price is ten ſeer of grain: tradeſmen pay two anas, which is deemed in ordinary times a higher price; but they pay no part of his annual fee of three ſheaves: when cattle die the hide goes to the Chumar.

The bad police of the Eaſt impoſes the neceſſity of employing watchmen during night to protect the property of individuals, and to preſerve the peace. This buſineſs is committed to the Duſſauds or Chockidars, ſeveral of which are required even in ſequeſtered villages. The nature of their employment inveſts theſe people with ſome power reſembling

that

that of a conſtable. They apprehend delinquents, or report diſturbances to the magiſtrate. Like all other ſervants of the public in this country, the Chockidars have an annual fee of three ſheaves from each plough during the harveſt: ten biggahs of ground are allowed to each for his ſupport; and as ſeveral are neceſſary, the police of the country, imperfect as it is, conſtitutes a heavy burden on the community In the vicinity of Europeans there is a greater circulation of property, and of conſequence greater temptation to the violation of it. Even in our military cantonments an officer can by no means truſt the charge of his houſe to ſentinels; he is obliged to hire two or three Chockidars, the only terms upon which he can hope for ſecurity. Without this precaution, the thieves have attained to ſuch dexterity in their trade, that they can eaſily ſteal the pillow from under his head during night.

THE moſt numerous claſs of labourers in a country village is that of the ploughmen. In this village they amount to about an hundred; and the wages of each is five ſeer of grain daily, and one rupee each *bulwary*, or ploughing ſeaſon: two ſtated ploughing ſeaſons occur each year, one at the ſetting in of the rains in June; the other after they break up in November. The wages of other country labourers is five ſeer of grain per day; and during harveſt the twenty-fifth ſheaf.

The *Abeer* or *Burdiah* (cow-herd) is another neceſſary profeſſion in every Hindoo farm. The ploughed land is neither fenced nor lying contiguous, but in ſcattered and detached ſpots, perfectly expoſed to every invader. The cow-herd receives two mauns of grain each month; and for every ten cows under his charge he receives the milk of one: if buffalos are under his management he is entitled to the milk of every fifth beaſt. The cauſe of this difference I have not learned; but conceive it to be the greater trouble occaſioned by keeping theſe bulky and obſtinate animals. The paſture is common to the whole village, and the tradeſmen graze cows on paying their proportion of the cow-herd's fee, which is two anas per month for each buffalo, or the milk of the cow every fifth day. Sometimes the paſture fields lie far from the village; to it however they are driven; and ſhould it be neceſſary to croſs a river, the cow-herd lays hold of the tail of a buffalo, and tranſports himſelf to the further ſide with great eaſe. In the community of the paſture grounds, the joint poſſeſſion of ſeveral tenants, and the payment of rent in kind, you will perceive a ſtrong ſimilarity to the practice of certain diſtricts in the Highlands of Scotland.

THE two trades I am next to deſcribe, are ſo different from every profeſſion to which European manners give riſe, that I beg leave to refer you to the authority upon which this narrative is grounded; for

I here wiſh to diſclaim all reſponſibility, as well as merit, in giving the information they may afford.

The trade of a *Barhi* is to prepare diſhes of leaves from which the Hindoos eat their food. In Bengal the plantain leaf is ſo common, and from its ſize ſo commodious for this purpoſe, that the object is attained at once without the intervention of profeſſional ſkill; but in the upper provinces there is no ſingle leaf which can ſupply the place of the plantain; an artificial combination is made up by patching different leaves together, which forms a ſubſtitute for a plate at the Hindoo meals. Five or ſix different kinds of leaves are employed for this purpoſe, according to the produce of each diſtrict. In all, however, the manufacture is carried on; and for every hundred plates furniſhed by the Barhi, he receives two anas; the zemindar paying only half that ſum, either becauſe he affords a houſe to the Barhi, or becauſe he takes the leaves from his trees. During feſtivals and religious ſolemnities, the Barhi carries a torch, and performs the office of a Muſſalgee.

The other profeſſion alluded to is that of *Bhaut*, or poet, a perſon who celebrates the family, and the atchievements of his patron; and indeed of every one who employs him. He is recognized as a member of the community, and has an annual fee of three ſheaves from each plough of the village. Should a man's vanity lay him under no contribution, he has nothing more to pay to this officer. A ſhare of this,

this, however, falls to the lot of many; and to gratify it they call upon the Bhaut to compose a poem in their praise; for every such composition he receives a gratuity proportioned to his merit, or the gratification afforded to his employer. Before marriages, which are here contracted by the parents, it is not uncommon to employ on each side a Bhaut, who celebrates the wealth, influence, and respectability of the party who employs him. And after the marriage, or the birth of their first child, the married persons give him a present of a bullock, or a piece of cloth, according to their circumstances.

These particulars are offered on the authority of a native officer of the Bengal army, who at my request made the necessary enquiries upon his own estate. The result he has obligingly communicated in a manuscript in the Hindivi, taken upon the spot. A translation of this manuscript forms the substance of this account; and as this gentleman bears a very respectable character, I have on my part perfect confidence in the accuracy and truth of every part of his narrative. It ought, in fact, to be regarded as neither absurd nor incredible, that in a country where every great man retains in his service a domestic merely for the purpose of proclaiming his titles to the mob as he passes, there should exist a race of men who subsist by flattery. Our own manners, a few centuries ago, are said to have countenanced a race of bards, who frequented the houses of chieftains, and celebrated their praises in as rude poetry, and by flattery

flattery as grofs as the Bhauts of the Hindoos. There are a thoufand particulars in which the European cuftoms and manners in the twelfth century feem to have refembled thofe of Hindoftan. The practice of entertaining buffoons and jefters at court, was common to both countries, and feems to announce a ftate of manners equally indelicate with that above defcribed.

In this community we have to notice five families of fhepherds who poffefs fifteen hundred fheep; they conftitute a particular clafs who fheer their fheep, and manufacture the wool. The finer blankets are fold for one rupee each; the coarfe eight anas; but the zemindar is entitled to what he ufes at an inferior price. Mutton is ate on certain occafions by almoft every caft, at leaft the rams; and the cafe is the fame with goats flefh. In this part of the country there is a price fixed by Europeans for every fheep; three for a rupee, or about tenpence each. This is lower than the real value, and muft operate as a grievance; it explains the reafon why the natives are fo averfe to fell their productions to Europeans.

From the fhepherd we pafs to the village Brahmin. As often as the Ryut has collected a particular harveft, the Brahmin is fent for, who burns ghee, and fays prayers over the collected heap; all prefent join in the ceremony; and the Brahmin receives as his part one meafure of grain in that implement which is employed in winnowing it. He is employed

by

by all the farmers, and at each harveſt, he collects a contemptible tithing for a village curate; beſides this the Brahmin receives many different fees and annuities. At each marriage he claims five per cent. of the bride's whole portion; in caſes where the parents can afford no marriage dower, the bridegroom pays the Brahmin his fee, which riſes with the circumſtances of the party; but even to a poor man it coſts five rupees.

OF THE VARIOUS GRAINS CULTIVATED IN UPPER INDIA

. . . .

Futtigurr, Dec. 1797.

THE different species of grain cultivated in Hindostan are more numerous than in Europe, or perhaps in any other part of the world. The agricultural division of the seasons is into the two Great Harvests Khereef and Rubbee. The former continues during September and October, and the latter during March and April. In the Khereef, the kinds of grain, chiefly cultivated in the upper country, taken in the order of ripening, are as follows *.

1. Bhootah;

* The Linnæan names are given on the authority of Dr Hunter, a Gentleman of great accuracy as well as learning, and a valuable member of the Asiatic society.

1. Bhootah; in the interior provinces, Mukha. This grain is in flower in July, and is reaped in August and September.

2. Congree; Panicum *Italicum*, flowers in the end of July.

3. Oord, or Mash; Phaseolus *max*, flowers in July and August, is reaped about the end of September.

4. Moong Phullee; Arachis *Hypogæa*, (ground nut of the West Indies), flowers in September.

5. Murhua; Cynosurus *coracanus*, Linn. This grain has obtained various names among the natives. In Mysore it is denominated Raggy; in the Carnatic Natchenny, aud Maud or Mal, in the upper provinces.

6. Bajira; Holcus *spicatus*, Linn. This grain called Drob in the north of Africa, is small and round in figure, reckoned nutritious in a high degree, but heating, and hard of digestion. Its cheapness renders it useful among the poorer class of inhabitants; and by the Mahratta cavalry it is made into flat cakes, which the horseman can carry under his saddle in sufficient quantity to serve him several days. It is also reaped during the Khereef.

7. Jooar;

7. Jooar; Holcus *Sorghum*, Linn. The culm is very ſtrong, and grows to the height of ſeven or eight feet. The ſpike egg-ſhaped, nodding, or hanging, ſix or ſeven inches in length, nine in circumference. Of this there are ſome varieties.

8. Moong; Phaſeolus *mungo*. The ſpecific difference between this and the Oord is difficult to eſtabliſh: for agricultural purpoſes it may be ſufficient to conſider them as mere varieties.

9. Beertia; a ſpecies of Panicum uſed in food, as is the Congree.

THE ſecond harveſt, Rubbeef. In this ſeaſon are grown and reaped moſt of the European grains; which are ſown at the breaking up of the rains, and gathered in ſpring.

1. Wheat; Triticum *ſativum*. The ſpecies moſt frequently ſown in upper India, has the following marks: Calyces four flowered, ventricoſe, ſmooth, imbricated: the two outer florets with long beards; the third with hardly any; the fourth and innermoſt neuter. From this character, ſays Dr. Hunter, I am doubtful whether it ſhould be referred to the ſpecies Æſtivum or Spelta, or whether it may be regarded as a new ſpecies. It is in general a pretty cloſe, thick crop; apparently ſmaller in both ſhaw and grain than our European wheats: but from its great hardneſs, and the vigorous ſun beams, it yields a

better

better flour. It is chiefly in the upper provinces that wheat is cultivated: in the low marshy grounds of Bengal it is not found to succeed.

2. Channah; Cicer *arietinum*.

3. Torr, or Arber; Cytisus *cajan*. It is sown during the rains, in mixture with the Jooar; and when that crop is removed it stands till reaped in the wheat-harvest.

4. Pease; Muthur or Buttlee: Of this there are several varieties, which are reaped during the cold season. It is surprising what degrees of continued frost these crops endure in the provinces of Rohilcund and the Deccan, without injuring them. During the months of December, January, and February, seldom a night passes without freezing the pools; yet from the dryness of the season little check is given to the crops.

5. Barley; Hordeum *tetrasticum* of Linnæus. This is the most abundant crop in all the upper districts of India: it is made into cakes by the natives, which are cheap, and by no means unpalatable. The species is four rowed, and of that kind called big by the English, supposed an inferior kind. It is a cheaper food than wheat, and for that reason perhaps it is more generally used than any other grain except rice in the lower provinces. Barley, in many districts, requires artificial watering; an operation by

far

far the most laborious in Hindostan. It is performed sometimes by the help of bullocks, but oftener by the hand, assisted by a simple machine.

7. Cotton is the great staple of some of these provinces, and that on which they principally depend for profit by exportation. It is carried on small bullock waggons from the interior, either to Mirzapore and Calcutta, on the Ganges, or the Guzarat on the Persian Gulph. This produce is in some districts partly manufactured into printed and stained cloths. The root of the Morinda *citrifolia*, termed Aal, is the material of this dye, and also forms an article of their exportation.

8. Opium is a favourite article of cultivation among the natives, which European capital and skill has tended greatly to increase. In our provinces the practice is varied according to the views of the European managers appointed for its direction. Among the natives in the independent states, the culture is more uniform, and not yet generally understood by us. In the province of Malwa, the most experienced natives have favoured us with the following particulars of their management.

The poppy seed is sown in December, upon ground well manured with cow dung or ashes: after a previous preparation of seven ploughings, the ground is divided into little square inclosures of two or three cubits; these inclosures are formed by a

slight

ſlight embankment of earth only a few inches in height: within theſe the ſeeds are ſown to the quantity of one ſeer and a half, or two ſeers per biggah, (one third of an acre). After eight or nine days the ground is watered, that is, completely overflowed to the depth of two or three fingers, by breaking down a ſmall outlet in each incloſure ſucceſſively. This operation is repeated ſeven times, at the diſtance of ten or twelve days: after each watering, when the ground is a little dried, but ſtill ſoft, it is ſtirred with a ſmall iron inſtrument, ſo as to looſen it effectually, and the weeds are carefully removed: the plants alſo are thinned away if they come up too cloſely, to the diſtance of five or ſix inches. The plants thus removed, if young, are uſed as pot herbs; but if grown up to a larger ſize, a foot and a half, they become unfit for this purpoſe from their intoxicating quality.

The poppy flowers in February, and the opium is extracted in March or April, ſooner or later, according to the time of ſowing: the white kind yields a greater quantity than the red; the quality is reckoned the ſame from both. When the flowers are fallen off, and the capſules aſſume a whitiſh colour, it is time to wound them. This is performed by drawing an inſtrument with three teeth, at the diſtance of about half a line from each other, along the capſule from top to bottom, ſo as to penetrate the ſkin. Theſe wounds are made in the afternoon and even-

ing; and the opium is gathered next morning. They begin at day-break, and continue till one p'har of the day is paffed. The wounds on each capfule is repeated for three fucceffive days. The whole capfules in a field are wounded, and the opium gathered in fifteen days. In a fruitful feafon, and good ground, they obtain from fix to nine feers of opium from a biggah of ground: a fmall crop is from two to four feers. When the drug is cheap, it fells for fifteen rupees per dhiree; when dear, and of a fuperior quality, for twenty-five rupees. A dhiree contains five feers and a quarter; fo that the grofs produce of a good crop is 1675 rupees per acre, equal to 200l. The grofs produce after fome imperfect experiments in England, amounted only to 50l. per acre; but from fuch data we are not warranted to draw any conclufion.

In the Mahratta diftricts all the opium, even at the time of gathering, is adulterated with oil; and this mixture they do not confider as fraudulent: the practice is allowed, and the reafon affigned for it is the prevention of too great drynefs in the drug. The people employed in gathering have each a fmall veffel containing a little oil of fefamum or lintfeed. The opium which has flowed from the wounded capfule is fcraped off with a little iron inftrument, previoufly dipt in oil: a little oil is taken in the palm of the hand, and the opium gathered with the iron inftrument, is wiped on the hand, and kneaded with the

oil:—

oil. The whole quantity gathered, is brought home kneaded into a mafs, and thrown into a veffel with more oil, into which the whole crop of the feafon is collected.

It is thus evident that the quantity of oil in any given quantity of opium, is not determined with much accuracy; they compute that the oil amounts to one half of the pure drug, or one third of the mixed mafs. The adulterations practifed fecretly, and confidered as fraudulent, are mincing the powder of the feed leaves of the poppy, and even afhes. The mixture of oil renders this opium of very inferior quality to that of the Company's provinces. It is particularly unfit for medicinal purpofes, and for making a tranfparent tincture. It is exported to Guzarat and other parts: the merchants advancing the money to the cultivator, at leaft in part, while the crop is on the ground.

OF THE HEMP, FLAX, &c. OF INDIA

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Chandernagore, 1799.

OF flax and hemp, with all their varieties, and the different substitutes for these useful articles, the Hindoo agriculturists possess greater abundance than any other people. The advantages of which these might be productive to a commercial nation have not been overlooked; yet it is probable that necessity only will prompt us to avail ourselves of them to that degree to which they may easily be carried.

THE most common substitute for hemp in Bengal, is the *Jute* or *Paut*, Crotularia *juncea*, Linn. It grows abundantly in many parts of this province; and is much used for sails, ropes, fishing nets, and other naval purposes. An act of Parliament has been passed permitting this article to be imported free of duty. It has in consequence been imported, though

though in no great quantity. Since, however, rags, and the materials of the paper manufacturers have risen so much in price, it has been recommended as a beneficial article to the owners of rice and country ships, to fill up their cargoes with as tonnage. Such goods as require to be packed in gunny bags have been found most convenient for the importation of this article, without risking much capital. The price of Sun, which, in its manufactured state, this commodity is called, is from seven to eight shillings per cwt. in Bengal, and it has sold in England at thirty-five shillings. The refuse of this plant furnishes to the Hindoos the material for making paper; and it is probably from this circumstance, that Mr Sewell, bookseller in London, first conceived the idea of rendering it subservient to our manufacturers during the great scarcity of materials. Many have already profited considerably by the information conveyed by this judicious and accurate observer; and it is highly probable that the useful hint which he has conveyed in the European Magazine, will be more beneficial to his country than some other more splendid discoveries.

The following varieties of this plant have been cultivated in the Botanic Gardens at Calcutta, and experiments decisive of their utility, have been made by Dr. Roxburgh, a gentleman to whom botany is more indebted than to any other man of the present times.

1. Bhungee

1. Bhungee Paut. Corchorus *olitorius*, Linn.

2. Ghee Naltha Paut. Corchorus *capſularis*, Linn.

Of the cultivation of theſe plants, and his attempts to improve the quality of their flax, Dr. Roxburgh's letter to the Governor in Council will convey the beſt idea.

"Immediately on my arrival in Bengal, among other things I turned my attention towards ſuch plants as yielded the natives materials for making twine, &c. and found they poſſeſſed not only Crotolaria *juncea*, and Hibiſcus *cornabinus*, (an account and drawings of theſe I have already tranſmitted to the Hon. Court of Directors), but that they alſo cultivated for the ſame purpoſes two ſpecies of Corchorus, the olitorius, and capſularis, with varieties of each ſpecies of Oſchynomene *, which the late Dr. Koning firſt deſcribed. Drawings and deſcriptions of theſe plants, with the method of cultivation, and preparation of their fibres, I have now the honour of tranſmitting, together with ſome cleaned ſamples, which I beg may be ſent to the Hon. Court of Directors."

"This ſubſtance (Jute), might probably be rendered much finer, even fit for cambric and lawn, by being

* Doonchа of the Bengaleſe.

being ſown thicker than uſual, and cutting it at an earlier period; for it is well known that cutting flax green, prevents that harſhneſs which it acquires by ſtanding till full ripe. I have in view ſome experiments to determine this point, which I think is a very eſſential one.— Beſides, the Hindoos, ſo far as I can learn, pay no attention to the cleanneſs, or quality of the water they ſteep the plants in, which is no doubt a material point; and requires to be attended to. Soft clean water, well expoſed to the ſun's beams, and never uſed for the ſame purpoſe a ſecond time, is what I would recommend. Jute ſo prepared, will no doubt be of much more beautiful colour, than when leſs pure water is uſed. Putrid foul water will moſt likely haſten this operation, and it is therefore employed by the Hindoo farmers, who are more intent on diſpatch, than on the colour of the ſubſtance, as it is only employed by them for coarſe purpoſes, where colour and appearances are totally immaterial.

" WITH a view to determine whether the quality of the Jute might be rendered finer by the above means, I cauſed two parcels to be ſown about the uſual ſeed time, viz one of Bhungee Paut, and the other Ghee Naltha Paut: The ſeed of the firſt proved bad; a circumſtance I did not learn, till it was too late to ſow a ſecond parcel; conſequently I am unable to ſay any thing farther concerning this ſpecies.

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"The capsularis grew well; and as it was sown thick, run up slender to a considerable height. It was cut at an early period, steeped in perfectly clean water, bleached, beat, and dressed with the scutch and coarse heckle. In the package which accompanies this, the dressed fibres will be found in one bundle, the dressing in another, and some of the undressed in a third. From these you will be able, I hope, to judge whether this substance is to be improved by the means practised in Europe, to procure fine flax for cambric, and fine lawn."

Besides these substitutes, the true hemp, (Bang of the natives), is found in many places of Bengal. It is however but little used, except for the oil, which is obtained from the seeds, and for medicine; or, lastly, for an intoxicating ingredient mixed with tobacco for the Hookah. Intoxication by this means, is perhaps the greatest and most universal evil suffered by the Hindoos; since its small price puts this treacherous luxury within the reach of all.

The common flax of Europe, (Tissee of the Bengalese), is cultivated in all the upper provinces as well as Bengal. This, however, is for the oil solely; for the natives are unacquainted with the use of Tissee as a flax. The cultivation of it for the fibre might no doubt be turned to great account, since under the present management this most useful part is entirely thrown away. On the vast and fertile plains of Bengal, proved by the experience of ages to be adapted to the growth

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of this plant, it is difficult to aſſign any limits to the quantity of flax that might be raiſed. Whilſt England pays annually to Germany for eight or nine hundred tons of linen yarn, this plant, and theſe rich territories offer a wide field of intereſting experiment to the government of Bengal.

Coir, (the inner bark of the Coco nut), uſed as the running rigging of ſhips, is preferred to hemp, by all who have uſed it. Though hard to handle at firſt, yet, on a little uſe, it becomes eaſy, and has many good qualities. Employed in cables, it is in general uſe in Aſia; and being at once light and elaſtic, it poſſeſſes many advantages. It has been ſtretched from ſix to nine inches without breaking; a degree of elaſticity which muſt enable a ſhip to ride eaſy; where with a common cable, it would be dangerous or impracticable. None of the Coir cordage receives tar; an advantage in point of ſaving, if it continues freſh and durable, as it is ſaid to do, when carefully wetted with ſalt water.

Our Oriental poſſeſſions have already contributed largely to the reſources of the empire in the neceſſary article of ſhip-timber; ſeveral of the moſt valuable ſhips that ever entered the Thames having been built there: It is probable that the period is not far diſtant when they ſhall prove equally ſerviceable in the articles of paper, ſails, and cordage. In obtaining from Hindoſtan all the benefits which are compatible with its own intereſt to beſtow, we have, it muſt be allowed

allowed many difficulties to encounter: The chief of these, perhaps, is want of enterprise in the natives themselves; they possess, (what philosophers supposed only to belong to inanimate matter) a powerful *vis inertiæ* which must continually be counteracted by the application of an adaquate stimulus on one part. To invigorate and properly apply the industry of so many millions of people is a great and important trust which has devolved upon the British. It is comfortable to observe that this is a trust, our countrymen who adventure in these provinces are, in general, well qualified to fulfill. Their ardour in pursuit of fortune is often a happy corrective of the indolence of the Asiatics. There are in Calcutta some mercantile houses whose enterprise and capital put in motion a greater number of hands than any equal number of individuals in any quarter of the world. The number of sailors, ship-builders, growers of indigo and cotton, and manufacturers of every description, who are supplied with labour and subsistence by the single house of Mr Fairlie, is perhaps not equalled by any individual in Europe. Yet this Gentleman, after twenty years laborious exertion in a debilitating climate, continues to prosecute every new adventure with the same activity as he commenced his career: "*Nil actum reputans donec aliquid superesset agendum.*"

OF

OF THE COCHINEAL.

• • • • • • • • • • • •

Benares, 1798.

The indigo manufacture which has given a confiderable fpur to the induftry of the natives of India, was foon fucceeded by an attempt highly commendable, to eftablifh that of cochineal. Dr. Nicolas Fontana, a gentleman of great literary knowledge, has detailed the advantages to be derived from this culture, in a very fatisfactory manner.

"The introduction of cochineal into Bengal, which our neighbours had endeavoured to naturalize in their Weft India poffeffions, deferves particularly to be marked as being likely, under proper management, to become not only a new æra in the progreffive refources of the Company, but an acceffion of opulence to the Britifh empire: an æra the more remarkable, as, notwithftanding the attempts of Go-

vernment, the design was not accomplished but through accident, the great parent of discovery, which, with never ceasing influence, operates in so many ways for the good of mankind.

"AFTER a large plantation of the various species of *Opuntia* had been reared at Madrass, waiting only the arrival of the insect to make it serviceable, which a long correspondence of thirteen years could not obtain, Dr Anderson's solicitations about it had almost been forgotten; yet though his laborious industry and zeal for his country's interest, had no other reward, the introduction of the cochineal insect into India is entirely owing to his publications on the subject, which fortunately fell into the hands of Captain Nelson, who was then stationed at Madrass with the 52d regiment. On the Captain's return to India in 1795, the fleet in which he sailed repaired for refreshment to the port of Rio de Janeiro. In his perambulations a little way out of this town, he was attended as usually by the centinel, when he saw a plantation of Opuntia with the insect upon it. This circumstance immediately brought to his recollection the ardent wish for the importation of the insect expressed in the letters he had read at Madrass; and he conceived the hope of being able to gratify Dr Anderson's desire, by carrying some to India with him.

"A day or two previous to his embarkation he took another walk to the place where he had seen the

the Opuntia or Nopal. He made bold to aſk the cultivators for ſome of the plant, being curious, he ſaid, in matters of natural hiſtory. Having collected ſeveral other plants he wiſhed to have this alſo. The good people being the leſs ſuſpicious, as he was in his regimentals, granted his requeſt They gave him ſeveral plants with inſects upon them, which he carefully carried aboard. Many of theſe, during the paſſage to Bengal, which was remarkably long and tedious for ſuch delicate paſſengers, died. A few inſects only remained alive on the laſt plant, ſeveral of the leaves having withered.

" Capt. Nelſon on his arrival in Calcutta. ſent the ſurvivors to the Botanic Garden, where they were diſtributed on the different ſpecies of the Opuntia. This well nigh fruſtrated the whole labour. On the China and Manilla ſpecies, they were found to die faſt. It fortunately occurred to make the trial on the indigenous Opuntia of Bengal, which is alſo abundant in many parts of India. On this the inſects thrived amazingly; in ſo much that from theſe few, in the courſe of four or five months a quantity had been collected ſufficient for diſtribution among all who wiſhed to try the rearing of them; and ſeveral plants upon which the inſects were feeding, were ſent to Madraſs.

" The novelty and importance of the object promiſing ſo ſpeedy and plentiful a harveſt of fortune, engaged a multitude of individuals to undertake the

buſineſs;

bufinefs; and this, no doubt, the more readily, as the cultivation of this rich field of wealth required but very little capital. Many golden dreams were enjoyed by the new planters. All who had a mind were provided with infects; and undertook plantations of Opuntia.

"The anxiety and impatience natural to all, who indulging in ardent expectations, undertake new enterprifes, induced fome of the planters of the Nopal to put the infect upon it, when the plant had juft emerged from the ground. Others, through inattention, kept their infects in places too near to where the Opuntia was growing young, which in that tender and premature ftate was devoured by these creatures, when hard preffed by hunger. The unfkilful mode of drying was likewife adopted: and fome of thofe perfons whofe opinions lead the multitude, declared in the moft decided and pofitive manner, that the cochineal would never anfwer, as it would not be found worth the trouble and expence attending the cultivation of it. All thefe confiderations damped in a great meafure the ardor of the enterprife. Many abandoned the purfuit, and left the infects to provide for themfelves, after the plants deftined for their ufe were deftroyed, wherever they could find nourifhment. They were feen flying about indifcriminately on various other plants, and thus perifhing; while others rooted out the plantations, and employed the ground for other purpofes.

"Be-

BESIDES the difcouraging circumftances already mentioned, it was urged that the fpecies imported into India, was only the Grana Silveftris, and that the firft fpecimens fent home had been of no value. They had grown lumpy and mufty for want of being properly dried, or thoroughly diverted of the cottony fubftance with which the infect is covered. But fuppofing, it was added, that a proper mode of drying and preparing it could be found out, and the cultivation of it brought to the greateft perfection, it would foon overftock the market, as there is a certain quantity only, and that not very great, which is required for Europe. This would foon be fupplied, and lofs inftead of gain would accrue to the planters. This excefs, however, it was farther urged, was to be prefumed only in the cafe of the country being able to fupply plants fufficient for the food of the infect, which was very doubtful on account of its quick reproduction, as it fends forth a new generation every forty days.

" THESE with other objections of lefs force, may eafily be refuted by any impartial obferver acquainted with the nature of the climate and foil of India, even without any kind of knowledge of agriculture. In fuch a vaft extent of territory as that of the Eaft India Company, and lying under fuch a variety of climates, it is not furely impoffible, or very difficult to find a climate and foil fitted for the naturalization and rearing the cochineal infect; and where the plants will grow to proper fize for affording it food;

in

in the ſame manner as in the diſtricts of Mexico, where the people who take moſt pains, have them growing to ſuch a height as requires ladders to gather the inſect. Such a ſtate of the plant would check the too rapid reproduction of the inſect, and at the ſame time improve its quality; for it is a fact that the Sylveſter Cochineal, when bred upon a full grown Nopal, loſes part of its tenacity, and grows to double the ſize of that gathered on gunny plants, and leſs covered with the cottony ſubſtance.

THE cultivation of cochineal, would in all probability be greatly favoured by the vicinity of a hilly country; ſuch as the Boglipore, Rajahmahl, and Purneah. It can be aſcertained by good authority, that there are already in the Chittagong diſtrict, plantations of large Opuntias, which have been growing for two years paſt. Whenever the inſect ſhall be placed on theſe plants, we ſhall ſee cochineal of a very good quality. The nature and habits of the natives, ſeem entirely calculated for the employment of gathering the inſect; work that may be done by old men, women, or boys.

"As to the drying the inſects, there is no country where the ſun has ſuch influence as in Bengal. The method of drying in the ſun, after ſcalding the inſect in hot water, is that practiſed in Mexico, and in Brazil; the inſects collected in wooden bowls are thereby ſpread from them on a hot diſh of earthen ware, and placed alive on a charcoal fire; where they are ſlowly roaſted,

ed, till the downy covering disappear, and the aqueous juices of the animal are wholly evaporated. During this operation, the insects are constantly steered about with a tin ladle, and sometimes water is sprinkled upon them, to prevent absolute torrifaction; which would destroy the colour; but a little practice will teach them to remove them from the fire, though surely its barbarity ought to prevent its adoption.

"By an estimate made on a large scale, of the necessary expence that would attend the cultivation of one hundred biggahs of Opuntia, it appeared that after making every possible allowance for ground rent, Ryuts gathering, and an European overseer, and interest on disbursement at twelve per cent. the quantity produced of grana sylvestris during nine months of the year, reckoning it at four sicca rupees per seer of thirty-two ounces, would more than treble the capital employed. But if this calculation be just in the vicinity of Calcutta, and there is no reason to suppose it otherwise, where labour and ground renti s dear; how much less would the whole expence of cultivation and preparation be, if transferred to a greater distance, and to the other provinces!

"When the insect has been well dried, it should be packed immediately, as it might otherwise be affected by the damp air of Bengal. In this business the method used in Mexico should be followed; which is to put it first into a linen bag, covered with

a compact net; and then over the whole an ox's hyde sewed so closely as to render it impervious to water.

" For some of the cochineal which I wanted for the purpose of making experiments, collected at Entally, two miles from Calcutta, I paid in 1796, sixteen rupees per seer: for the same quantity raised by another planter, the following year, eight rupees; and in 1797, I might have bought a great quantity, part of which came one hundred miles from Calcutta, at five rupees per seer.

" The improveability of the grana sylvestria by attention, will be ascertained more clearly by the following fact, than by a thousand arguments. Some merchants, at my recommendation, bought about two hundred pounds of cochineal made at Rassapuglah, five miles from Calcutta, at five rupees per seer. The same house paid for seven mauns, or 280 seers, to Mr Stephens at Keerpay, seven rupees a seer, in 1797, and I can say that it was the best the sort that had yet been seen in town, both for size, cleaning, and drying.

" Let us now suppose for a moment, such cochineal as that made at Keerpay, to be the best that can ever be obtained in Bengal, and that the above may be within a rupee, more or less, the average price. The grana fina, that is brought to Bengal by way of Manilla, sells, when abundant, at sixteen

teen rupees per ſeer, but oftener at nineteen and twenty. The Bengal Sylveſtris contains only from 9-16 to 10-16 parts of the colouring matter contained in the other; but ſay only one half, ſo that the manufacturer will be obliged to uſe two ſeers inſtead of one, the quality of the colour to be the ſame, even at this rate, the ſilk manufactories at Bengal might be ſupplied with it, with a yearly ſaving. After ſupplying this market, if the quantity be increaſed, there will be a demand for it in the China, and Engliſh markets, though only of the Sylveſter kind. Suppoſing it for ever to remain ſuch, by leaving it to the indolent natives only, even this would be a great acquiſition, conſidering the various ways in which it can be employed by the dyers. Beſides if the prices were immediately to fall, ſo as not to indemnify the preſent freight and inſurance to the private adventurer, how eaſy would it be to reduce the inſect to a much ſmaller bulk by making a lake, and producing carmine no leſs valuable than the grana fina.

"The overſtocking of the market, however, with a drug ſo important, and of ſuch extenſive uſe, is not a thing very likely ſoon to happen. The manufacturer wherever he ſhould find it at a price would uſe it generally, and ſubſtitute it in the room of other materials for reds; ſuch as madder, redwood, and others uſed for woollens, and ſilks; beſides the great varieties of ſhades from ſcarlet and crimſon, down to all thoſe various tints, to be obtained by

modifications of reagents from cochineal, with a brilliancy and ſtability that would ſoon repay the ſmall additional expence that might be incurred by this ſubſtitution.

"It is a thing greatly to be wiſhed by every citizen and patriot, that the Bengal cochineal may ſoon be brought to ſuch a degree of perfection, and produced in ſuch plenty, as may admit of a reduction of its price ſufficient to induce the calicoe printers in Europe to uſe it more commonly than hitherto, in the dying of cotton; which open a much wider field for its conſumption. As to the ſhyneſs of cotton to the admiſſion of this animal colour, it is not an obſtacle that ought by any means to be conſidered as inſurmountable, in the preſent ſtate of chemiſtry, advancing ſo rapidly to farther improvements, and particularly applying, with vaſt ſucceſs, many of its operations to the art of dying. The few unſucceſsful attempts made by manufacturers, and chemiſts, to fix this colour on cotton, have been defeated more by the dearneſs of the drug, than by any impracticability of the deſign. This exhauſted at once the purſe and the patience, both of the artiſt and chemiſt; and precluded that continuation, repetition, and diverſification of experiment which is neceſſary to the completion of new inventions.

"It was upon cotton that the Spaniards firſt ſaw

ſaw the cochineal uſed in Mexico; but for want of preparation, it produced but a dull crimſon. When ſome of the dried Bengal inſect was ſhewed to the Vakeel of the Rajah of Napal, reſiding as miniſter to our Government at Calcutta, he ſoon knew it, and declared, that it was always uſed in dying his country robes and turbans. The opportunity ariſing from the management of a chintz manufactory, induced me to make ſome trials of cochineal in cotton cloth and thread. By theſe it was aſcertained, that the quantity of colouring matter, contained in the Bengal cochineal of 1796, compared with the grana fina, was from nine or eleven, to ſixteen. I then repeated as far as the chemical reagents, to be obtained in India, would permit, various experiments of the kind mentioned by Dr. Barcroft, in his firſt volume of the philoſophy of faſt colours, and nearly with the ſame ſucceſs in variety of ſhades and degrees of permanency. From theſe experiments there reſulted two conſiderable benefits to that manufactory: The firſt was, that I was induced to make an addition of a certain quantity of powdered cochineal to the morinda root, for the fine cloths and muſlins that were to undergo the boiling proceſs in the vat: The ſecond, I was led to mix with the baſis for printing red, (alum), a decoction of cochineal, inſtead of the Turmeric, or red wood, formerly uſed by printers in tracing their deſigns. This laſt ſubſtitute was only boiled in

ſimple

ſimple morinda, and the other with the addition of cochineal. By this proceſs deep and brilliant reds were obtained, ſuch as had not hitherto been ſeen in Bengal.

The cultivation, therefore, of the cochineal inſect, is an object worthy of all the countenance and care of Government. The attempts towards its naturalization ought not by any means to be abandoned, but continued with all perſevering induſtry, and unwearied attention, to every circumſtance that may promote ſo important a branch of commerce. For this article we ſend annually immenſe ſums to the Spaniards. Not only might this expence be ſaved to Britain; but, in due time, the reſt of the world might be ſupplied from the Bengal produce of this valuable commodity. It is in the recollection of moſt people converſant with India affairs, how the firſt ſpecimens of indigo ſent home from Bengal were depreciated and rejected: Hence the cultivation of it was obſtructed for ſome years. But when it began to be attended to in 1780, and 1782, by people who were acquainted with the beſt modes of manufacturing it, it was improved with ſuch rapidity, that in 1790 ſome of the Bengal indigo was judged to be equal to the Guatimala, and bore the ſame price. The quantity ſent home in the year 1795, and 1796, was far beyond what had ever been imported into the port of London from all the world, and more than is required for the

the annual confumption of Europe. The ufe of indigo in the dye-houfe is very circumfcribed, and confined chiefly to the colours of blue and green. It gives alfo a few finer blacks, with lilac grounds; but it cannot, like cochineal, be applied to the various principal colours, as crimfon, fcarlet, purple, and to all the intermediate fhades.

OF

OF THE LABOUR ABSTRACTED BY THE DIAMOND MINES.

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Mirzapore, 1798.

A CONSIDERABLE portion of the rural labour of Hindoſtan, is abſtracted from agriculture, its proper object, and employed in the diamond mines. Of the four principal mines, that at Roalconda, five days journey from Golconda, is the moſt antient; for Tavernier ſays that it was diſcovered two hundred years before his time. Around the place where the diamonds are found in this mine, the ground is ſandy, and full of rocks, in which there are veins of half a finger, to a whole finger in width. The miners make uſe of irons with hooks at the end, with which they pick out the earth or ſand, from theſe veins, which they put into tubs, and among that earth they find the diamonds.

THERE

There are ſeveral diamond cutters at this mine, but none of them have above one mill, which is of ſteel. Tavernier, who is a judge of this ſubject, aſſerts that the natives cannot give that lively poliſh to the ſtones which the Europeans do, yet they can cut ſome which our lapidaries will not undertake.

There are two kinds of merchants employed in this traffic; the one takes a portion of the ground, and employs miners to dig, paying a duty to the King of four pagodas per day, for every hundred men employed in the works; the other claſs of merchants are merely purchaſers of the ſtones from the firſt, and they alſo pay a duty to the king of two per cent. for all that they buy.

Of this latter claſs was M. Tavernier, who has given by far the moſt detailed and authentic account of this trade that has yet reached Europe. He had made many different journeys to the different mines of India, and in this traffic accumulated an immenſe fortune.

"It is very pleaſing, he obſerves, to ſee the young children of the merchants, and other people of the country, who ſeat themſelves under a tree in a ſquare of the town; and though not older than fifteen or ſixteen years, and many ſtill younger, they make bargains with perfect ſkill and exactneſs. Each has his diamond weights, and a bag hanging by one ſide, with a purſe at the other; thus he ſits expecting his

cuſtomers,

customers, who come to sell. When any person brings a stone, it is put into the hands of the eldest of these boys, who sits as a kind of chief, and after having examined it, passes it to the rest one after another, till all have seen it, when it is again returned to him. Meanwhile not a word is spoken; till he demand the price, with a view to purchase it, if possible; and should he buy it too dear, it is on his own account. In the evening the children compute what they have laid out; then examine their stones, and class them according to their water, their weight and cleanness: they then carry them to the great merchants, who have generally large parcels to match. The profit is then divided among the children equally; only the chief among them has one fourth per cent. more than the rest."

The bargains made by the great merchants, both Mahommedans and Hindoos, are transacted with peculiar secrecy and dexterity. The buyer and seller sit opposite to each other, and without speaking a word, the one of the two opens his girdle, the seller takes hold of the purchaser's hand, and with it he covers it as well as his own, and according to different signs made by the touch, perfectly understood by the parties, the bargain is concluded. Thus in the same place, a parcel may be sold several times, without any one present knowing that it hath been sold at all, or for how much.

As

As the value of these mines depends much upon the security and protection given to the purchasers who resort to them; the native governments have, afforded this with much solicitude. A particular person is appointed to weigh all the diamonds, to preclude all imposition in this particular; servants are appointed to every considerable merchant during his stay, to guard both his money and effects, and not unfrequently an escort is allowed him till he reach the frontiers of the kingdom.

The lot of the poor natives, who work the mines, though well skilled in their business, is invariably a hard one. Their wages never exceed three pagodas in the year; a subsistence so scanty almost compels them to dishonesty. Accordingly they make little scruple, as often as with safety they can, to hide a stone for their own profit. As they are perfectly naked, except the small rag around their middle, this can hardly be done but by swallowing the stones; and this being detected they have been known to secrete them in the corner of the eye. To prevent thefts, twelve or fifteen out of fifty are bound to be security for the honesty of the rest, to the great merchant who employs them.

About seven days journey east from Golconda, lies the mine of Colour, or Gani, as it is called by the Hindoos. This mine was discovered about an hundred years later than that of Roalconda, by a peasant while he was preparing ground to sow millet,

who found at the foot of a high mountain a glittering ſtone, as he thought, but on preſenting it at Golconda to a diamond merchant, he was informed of its quality and value.

The report of this trader in diamonds, who had not before ſeen one of ſo great weight, made much noiſe in the country, and engaged the monied men in the vicinity to ſearch the ground, where they found, and ſtill find many of greater ſize than at any other mine. Here are produced a number of ſtones from ten to forty carats, and among them ſome larger, particularly that preſented to Aurengzebe, weighing nine hundred carats. In this mine the earth is dug to a conſiderable depth, carried to a ſpot prepared for the purpoſe, and there waſhed, and winnowed. The men, women, and children employed in theſe labours, when the place was firſt viſited by Tavernier, amounted to upwards of ſixty thouſand; and many ſuperſtitious ceremonies were employed to engage their diligence and fidelity to their ſuperiors.

The third mine is that of Sumbulpour, lying thirty coſs ſouth of Rhotas, on the confines of Bengal. The name is the ſame with that of a large town on the river Gouel, in the ſands of which the diamonds are found. After the great rains are over, they wait for two months till the water becomes clear, and the river has ſubſided ſo low as in ſome places to leave the ſand dry, in other places covering it only a few inches. This happens about the end of

of January, when workers flock to it from Sumbulpour, and the neighbouring towns, to the amount of eight thousand persons, men, women, and children.

They search the river from the town of Sumbulpour, up to its very sources in the mountains, through a tract of an hundred miles. Those who are skilled in this business know from the appearance of the sand whether it contains any diamonds; when there is reason to believe that there are any, they enclose the place with stakes and faggots, and draw out the sand for two feet deep. This sand they work, sift, and winnow, as at the other mines. "From this river, says Tavernier, come all those fair Points called Natural Points, but a large stone is seldom found here."

The fourth diamond mine was in the Carnatic; but was ordered to be shut up by Mirgi Mola, the famous General of Aurengzebe, on account, as it is said, of the yellowness of the diamonds, and the foulness of the stones.

The hardness, lustre, and beauty of the diamond, have conferred on it a very high value as an ornament among all nations; but no where has it been prized more than in the Mogul territories. Rich presents of these stones to the Sovereign, have always paved the way to rank and preferment. Hence the value of jewels and precious stones accumulated by the Emperors has been immense. In the time

of

of Tavernier, one ſtone in the poſſeſſion of the Great Mogul, weighed 279 9-16 carats, and was valued by him at 11,723,278 livres, or nearly half a million ſterling. During the reign of Acber, which was before the period when the empire reached its ſummit, either of wealth or ſplendour, the vaſt treaſures of the monarch were preſerved in twelve diſtinct offices, three of which were occupied by the jewels and plate only. To each treaſury a Tepukchy and Darogha were appointed, who claſſed the jewels in a regular manner, according to their kind and value, and they were always ready to render an exact account daily or monthly of their application or expenditure. Concerning the different regulations of the mint and jewel office, the author of the Ayeen Acbery is more full and luminous, than upon any other department of the internal economy of that great empire.

The Moguls were no leſs curious in other gems than in the diamond: Emeralds, topazes, ſaphires, and pearls, always occupied a conſiderable part of the jewel office; and their value was greater than that of the diamond. Conſidering the ſmall progreſs that chemiſtry had then made in any part of the world, their knowledge of gems and of the precious metals may be regarded as both accurate and extenſive. The methods laid down for refining gold and ſilver, by Abul Fazel, rather reſemble the accuracy of a profeſſional man, than the ideas of a nobleman treating generally of the ſtate of the treaſury. No leſs than

than twelve different degrees of fineneſs of gold, called barrah banny, are diſtinctly noted in his book; and the method of aſcertaining each degree in any given ſpecimen, is accurately laid down.

The practical habit of aſcertaining the goodneſs of coins, or the fineneſs of jewels, is an attainment in which Europeans are at preſent far outdone by the natives. Their ſkill in this matter is ſo decidedly ſuperior, that every European whoſe tranſactions are conſiderable, retains a native writer, or Bannian, who receives payments for him, and who is anſwerable for the ſufficiency of the money of which he accepts. In moſt of the great towns of Hindoſtan, gems and precious ſtones are procurable as a mercantile commodity; but an European without profeſſional knowledge, and much experience in this traffic, could not ſafely enter into competition with the native merchants.

Another cauſe of the abſtraction of uſeful hands from agriculture, is the pearl fiſhery. The natives employed in this trade are very numerous, while the drudgery they ſuffer is far more unhealthy and perilous than that of the diamond mines.

The ſhell-fiſh which produces this jewel, is the Mytilus margaritiferus, which is found adhering to the coral banks along the ſhores of Tinivelly. It is fiſhed by the natives, who aſſemble in ſmall boats from different quarters, at two ſeaſons of the year; the

the firſt continues during March and April; the ſecond during Auguſt and September. After each fiſhing a numerous fair is held for the ſale of the produce. Seven different villages ſkirting the ſea, of which Tutocorin is the chief, have long been famous for a numerous population ſubſiſting by this traffic; but if we may judge from their toils and their dangers, their condition cannot be envied.

The divers ſink themſelves to the bottom generally at the depth of twelve fathoms, by means of a ſtone faſtened to their feet, and from habit can remain under water till they fill their bag with ſhells; this effected, by a twitch of the rope they make a ſignal for being drawn up. The ſpace of eight or ten minutes has ſcarcely elapſed when theſe miſerable divers again plunge into the ſea, to repeat the ſame taſk, which continues during the whole fiſhing ſeaſon. This is the Κολύμϐησις τȣ πινικȣ of Arrian, which from his time to the preſent day has conſtituted the drudgery of an unhappy race, who are thus expoſed not merely to the danger of cold and ſuffocation, but to the voracity of the ſhark, who devours many of their numbers, in ſpite of the *Abrajamins*, or magicians, whom they ſuperſtitiouſly employ to charm them.

The fiſh when collected, are left in vaſt heaps to putrify upon the ſhore; and thus fever, dyſentery, and a new ſeries of calamity is generated among the adventurers; who, after all this riſk and toil, pocket

but

but ſmall gains from a traffic, the ſucceſs of which is very precarious. The pearls in general found are ſmall, called ſeed pearls, and ſold by the ounce; the larger pearls which ſometimes conſtitute a prize in this hazardous lottery, are of immenſe value, and have continued in high eſtimation ſince the earlieſt times. A ſingle one preſented by Julius Cæſar to Servilia, the mother of Brutus, has been eſtimated at above forty-eight thouſand pounds; others of ſtill higher value are figured by Tavernier, particularly that great pearl which hung from the neck of the artificial peacock, which ſurmounted the diamond throne of Aurengzebe.

DESCRIPTION

DESCRIPTION OF THE FORT, AND OF THE ADJACENT COUNTRY.

....

Allahabad, July 9, 1798.

THE cultivation of the land goes forward here with a greater degree of ſucceſs, than, from previous information reſpecting the province, I had reaſon to expect. During a ſhort ride in the morning, you may obſerve in this ſeaſon nearly an hundred ploughs at work: theſe are however, if poſſible, of a more aukward, and inefficient ſtructure than thoſe I have already deſcribed: the whole plough and harneſs is daily carried to the field by the ploughman, who is ſometimes a ſlender boy.

THE ſetting in of the rain, is every where the commencement of the ploughing ſeaſon; during the dry weather, the ſoil becomes too hard to be penetrable by an implement ſo paultry as an Hindoſtanee plough.

plough. The ſugar plantations, of which there are a few here, are an exception to this. Theſe are watered, and conſequently can be dreſſed earlier. At preſent they are in great forwardneſs, overtopping, by the height of a yard, the ſmall fences by which they are incloſed. Wheat, bajerrow, and Indian corn, are other crops of this ſeaſon pretty well advanced, having already received one weeding.

SOME manure is here laid upon the ground, not cows dung; that is too precious; but any kind of filth or rubbiſh which can be collected in a farm-yard. This is carried out in baſkets, borne not on the back, as is done by our Highland damſels, but on the head. Among ſuch barbarous uſages, it is not worth while to make compariſons; yet in the quantity carried, the Highlanders have a decided ſuperiority, over a race where feebleneſs and want of energy, as well as ſtrength, is conſpicuous in every thing.

A perſon is hurt to record ſuch proceedings; they derive importance however from the conſideration, that ſuch ſervile drudgery conſtitutes the lot of, perhaps, the far greater part of the human race. Could you imagine it, even in theſe humble toils, and in this obſcure deſtiny, the peaſant is inſecure. When he goes abroad to the market, or to reſume his labour in the field, he arms himſelf according to his circumſtances, with a tulwar, a ſpear, or a bludgeon and truſts more for protection againſt violence

to the ſtrength of his individual arm, than the general police of the country.

AMONG the early Romans, we are told, that every ſtranger was an enemy, and that by one word they expreſſed both Here a man's enemy is perhaps his neareſt neighbour: when, therefore, he leaves his houſe, he prepares himſelf for what frequently happens, an encounter with thieves and robbers *.

THE inhabitants of Oude, in their political aſſociation, if a ſtate of anarchy can merit ſuch a name, are in that condition which was decreed as a curſe upon the deſcendants of Eſau; "their hand is againſt every man, and every man's hand is againſt them." They have actually before their eyes, what the celebrated demagogue only had in beatific viſion; a view of ſociety reduced to its "firſt principles." Each individual here travels either with the proſpect of defending himſelf againſt robbers, or of aſſuming himſelf that perilous vocation. Hence every man who has been abſent for any conſiderable time, has a ſacrifice offered to the gods for his ſafety, if haply he return ſafe to his family †.

THUS

* "Why are ye come out againſt me with ſwords and ſtaves, as againſt a thief and a robber?" is a queſtion you may here put to almoſt every man you meet; for by every one you are held in ſuſpicion.

† Vide Seir Mutagherin, by Golam Hoſſein Khan.

Thus within the ſhort period of a man's life, fell ſuddenly to pieces the great empire of Hindoſtan, almoſt without external violence; like an animal body in the lateſt ſtage of putrifaction, from the extent and maturity of corruption that pervaded the whole of its members. Every province, almoſt every diſtrict, diſplayed a faithleſs ſervant of the empire, or ſome adventurous chief uſurping abſolute power; and practiſing all the extravagancies of an unprincipled mind on its ſudden elevation to the plenitude of deſpotiſm. While you, therefore, inveigh in ſuch impreſſive terms againſt European rapacity in the Eaſt, we, who are on the ſpot, content ourſelves with the humble perſuaſion, that for a country in ſuch a ſtate to be poſſeſſed by a Britiſh army is a kind diſpenſation of the Ruler of nations.

It is felt and acknowledged as ſuch by the natives themſelves. The protection it affords gives them an opportunity of laying aſide their ſwords and ſpears; or, if you pleaſe, of literally "turning them into ploughſhares." With regard to myſelf, that conviction has not ariſen from books, but from ocular demonſtration.

The working cattle are a ſmall ſpecies of oxen, of a hardy breed, as the uſage they endure abundantly teſtifies. That ſuperſtitious veneration paid to the cow, does not always enſure humane treatment to this animal; ſo looſe is the connection between religious belief and moral conduct. Black cattle during

ing the dry feafon are fo poorly fed, that they barely furvive. A dozen of milk cows will hardly equal the produce of a fingle one of your's, either in the article of cheefe or butter.

The buffalo feems here an ufelefs animal; it enters not the draught, and not often carries burdens; a coarfe kind of rancid ghee is the only vivre it feems to afford. The goat, however, feems to attain the full perfection of the fpecies. While the grafs is burnt up by the exceffive heat, it nibbles fuccefsfully among the roots for a fubfiftence At prefent while the moifture produces abundant vegetation, it wallows in fo great plenty that the dug is diftended fo as to drag upon the ground.

In Allahabad, the breed of fheep is fmall even for India; and the fleece confifts of a coarfe black hair, altogether unfuitable for cloth Of this harfh ftuff, however, fuch as it is, fmall rugs are made for the fhepherds to fhelter them from the rains, and to wrap their body during the night. Under thefe you fee them fhivering in the fields; followed by a few fheep, or tending hogs. This laft is the moft humiliating condition to which either a Hindoo or a Muffulman can be reduced. And as the Jews had fimilar prejudices, the prodigal muft have been in great diftrefs before he fubmitted to his patron, who "fent him into the field to feed fwine."

The

The wages of these "hired servants," are so extremely small, that there is little difficulty in believing that they are sometimes reduced to the necessity of participating in husks with the animals they tend. It is certain that even in the times of plenty, our grooms have been found eating the horses meat, although their wages are regularly paid, and amount to double the price of country labour.

In this district, the whole stock of a farmer is not perhaps worth eight rupees; when the price of his cattle is included, it still amounts only to a paultry sum. He is unsafe in laying out money on his farm, and he does not attempt it. The best informed native I have had the opportunity of consulting, assures me that the Ryut has no security whatever in the possession, no more than his superiors the Aumil and Zemindar.

The rents are levied by an irregular banditti, under the denomination of an army, who drive away the whole of a village, burn the houses to the ground, and carry off the women and children. An action of this kind happened in the morning on the same ground which our army occupied in the evening, during our march to this place from Lucknow.

If the stock of the farmer be insecure, money lent is almost equally so. A man who possesses any thing beyond a mere subsistence, is induced to expend it on personal ornaments; rings for his wife's nose

and ears; or bangles for her ankles. Thus the whole property of a family is generally borne on the back of its members. Whatever is not difpofed of in this way is hid in the ground. There are traditions of money being concealed under this fort, and almoft all the great buildings in India. Though I am apt to believe that fuch reports are often current without any foundation in truth, it is certain the Begum of Azof Dowlah paid the demands of the Company made upon her hufband, by treafure thus depofited.

SHE fent an eunuch with certain directions into a rugged field with a ftring, which he fixed upon a peg he found there; from this he ftept backwards, keeping the peg in the fame line with his eye, and a third object mentioned in his direction. When he had extended his line to a certain mark, he there ftopt, and ordered the ground to be opened, when twenty-three lacks of rupees were taken up.

A few perfonal ornaments are therefore the whole wealth, even of the better fort of Ryuts; and this wealth flows in the fame channel with his affections. A favourite child, is frequently decorated with talifmans of filver hung round his neck, or tied to his arms. Thefe, according to the popular creed, are of power to repel all the machinations of demons, and to ward off all that hoft of ills which "flefh is heir to." The Muffulmans indulge the fame fuperftition, and are equally confident that they derive

the ſame advantages by incloſing in the trinkets a few holy texts from the Coran.

The fort of Allahabad, from its ſituation at the confluence of the two ſacred ſtreams, the Jumna and the Ganges, has a high reputation. It is reſorted to, as well as Benares and Gyah, by great numbers of devout pilgrims from all parts of India. There is at preſent an encampment of four thouſand Mahrattas from the diſtant province of Guzarat. They are the retinue of a pious widow, who has travelled thus far with the bones of her huſband, with a view to immerſe them at the point of junction of the two holy ſtreams.

Each individual pilgrim avails himſelf of this opportunity of waſhing away, not merely his ſins, but all filthineſs of the fleſh, by this uſeful ablution. The ceremony of purification is performed by ſhaving every part of the body by the hands of a Brahmin, and afterwards bathing. A ſmall offering for this ineſtimable privilege is preſented to the officiating prieſts of the place. Next to their intereſt, that of the prince is conſulted in theſe ceremonies. A ſmall tax muſt be paid to the Nabob of Oude for their admiſſion to the ſpot. This tax amounts annually to a conſiderable ſum, with the collection of which the Britiſh have avoided all interference ſince their acquiſition of the fort. It is farmed out at a certain ſum to a native, who annually remits the amount to the Lucknow treaſury.

Those

Those officers, whose apartments are near the point of junction, are not a little annoyed by the midnight orisons of these devotees. Their howlings under the windows, rather resemble the noise of a madhouse, or the wailings of despair, than the aspirations of sober piety.

What is still more embarrassing, part of these ceremonies must be performed in a vast subterraneous cave, in the middle of the fort, which is supported by pillars, and extends far and wide in every direction. This noisome dungeon, which affords to unbelievers an image of the gate of Tartarus, rather than the porch of Paradise, leaves the caves of the sybils far behind it in every thing tremendous and disgusting; and is said to be infested by snakes and noisome reptiles, and to penetrate under ground as far as Delhi. The popular legends of every country are thus marvellous and absurd.

It is certain, however, that the heat, and suffocating vapours, which continually exhale from it, is likely to prove fatal to the worshippers; they are seen fanning each other after returning from visiting it, with all the symptoms of having inhaled a noxious atmosphere. In a few minutes my curiosity was literally *stifled;* I returned satisfied with enjoying a Pisgah view of these disagreeable mansions of stench and devotion.

The

THE pilgrims, to be admitted into this cave, muſt enter the gate of the fort; and as piety has frequently been employed as a cloak for cunning, the guard muſt be vigilant, and of greater ſtrength than might otherwiſe be required. Our recent poſſeſſion of a place, where the ſuperior ranks may be jealous of our incroachments, or envious of our power, demands peculiar circumſpection. The Greeks, we are told, entered Troy under pretence of devotion; and as the Muſſulmans are not more celebrated for honeſt dealing than the Greeks, our Commanding Officer muſt be commended for reſpecting a caution which they deſpiſed:—"*Timeo Danaos et dona ferentes.*"

RELIGIOUS fear is alone capable of extorting caſh from a Hindoo; for of all the trials of his faith and patience, that is the moſt ſevere which touches the purſe, and the only difficulty the Brahmin has to encounter is to thruſt his fingers there. An obſtinate ſtruggle between avarice and piety was lately exhibited by a large party of Mahrattas, about 12,000, who arrived here a few months ago. The Brahmins were offered four or five thouſand rupees in the name of the whole caravan; while a larger ſum was demanded on their part, accompanied with a threat of excluding the pilgrims from the holy precincts, if it was not immediately paid down. This had little effect, till a Brahmin, who knew his *monde*, offered to cut off one of his thumbs from his hand. Had this been the conſequence of their obſtinacy,

they muſt not only have loſt their caſt, but according to their own creed, the blood of this holy man muſt have been expiated by their whole poſterity. Such ſins of fathers are viſited upon their children, not for two or three generations, but *ad infinitum*.

In compariſon with ſuch a deſtiny as this, the ſum demanded was but a trifle; to the good pilgrims it appeared ſo; and they inſtantly paid it down.

Some of theſe victims of ſuperſtition annually drown themſelves at the junction of the ſtreams; and this being the moſt acceptable of all offerings, it is performed with much ſolemnity. The perſon who thus undertakes a journey to the manſion of bliſs, muſt preſent a larger ſum to the prieſts, than the common herd of pilgrims. The rapidity with which the victim ſinks, is regarded as a token of his favourable acceptance by the god of the river. To ſecure the good inclination of the deity, they carry out the devoted perſon to the middle of the ſtream, after having faſtened pots of earth to his feet.

The ſurrounding multitude on the banks, are devoutly contemplating the ceremony, and applauding the conſtancy of the victim; who, animated by their admiration, and the ſtrength of his own faith, keeps a ſteady and reſolute countenance, till he arrives at the ſpot, when he ſprings from the boat, and is inſtantly ſwallowed up amidſt univerſal acclammations. Five or ſix different perſons of either ſex, have,

ſince

ſince our arrival, in defiance of nature, *thus boldly ſnatched the crown of martyrdom.*

Burning a wife on the funeral pile of her huſband, is certainly the moſt painful exaction ever made by ſuperſtition on human ignorance. It ſeems, however, to be outdone by this more ſplendid effort of fanatical zeal; and drowning at Allahabad appears to have ſuperſeded the uſe of the funeral pile. Of the latter I have heard but one inſtance ſince our arrival in theſe provinces.

In a country where the deſpot is every thing, and the people nothing, immenſe public buildings are erected by the labour of his ſlaves. The fort of Allahabad, after all the cheapneſs of labour, muſt have coſt millions. It is ſaid to have been undertaken during the later years of Acber's reign, and to have been continued by ſeveral of his ſucceſſors. It is an immenſe ſtructure, ſo deeply founded on the brink of the two rivers, as to bid defiance to the aſſaults of both.

There is perhaps no building of equal ſize in Europe; this, however, is all that can be ſaid in its praiſe; for it has not even the appearance of being capable of holding out againſt a battering train. It is as deſtitute of elegance as of ſtrength; for though it contains an Imperial palace, and other ornamental buildings, it preſents no idea to the

the beholder but that of the monarch's power and his want of taſte.

THE Royal palace, and its twelve adjacent ſquares, are a complete model of an Aſiatic zenana. The upper rooms of the Imperial apartment command a view into each ſquare, where probably were lodged the choiceſt beauties from the twelve ſoubudaries of the empire.

IT is probable that this building, large as it certainly is, never contained one half of the wives of Acber; ſince it ſeems by the repreſentation given by Abul Fazel, to be only a miniature of the Haram at Agra, his ordinary reſidence. The Haram there, he ſays, " is of ſuch immenſe extent, as to contain a ſeparate room for every one of the women, whoſe number exceeds five thouſand. They are divided into companies, and a proper employment is aſſigned to each individual. Over each of the companies a woman is appointed *Darogha*; and one is ſelected for the command of the whole, in order that the affairs of the Haram may be conducted with the ſame regularity and good government as the other departments of the ſtate.

" EVERY one receives a ſtated ſalary, equal to her merit. The pen cannot meaſure the extent of the Emperor's largeſſes; but the ladies of the firſt quality

quality receive a monthly ſtipend, from 1610 rupees, down to 1028. Some of the principal ſervants of the preſence, have from fifty-one down to twenty rupees; and others are paid from twenty rupees up to forty.

"An eſtimate of the annual expences of the Haram being drawn out, the Muſhreff writes a draft for the amount, which is counterſigned by the Miniſters of State; after which it is paid in a coin that his Majeſty has cauſed to be ſtruck ſolely for this purpoſe. This money is paid by the Grand Treaſurer to the Paymaſter-General of the Palace; and, upon a written order ſent by the Muſhreff of the gate, it is diſtributed among the inferior paymaſters of the Haram, and by them paid to the different ſervants thereof.

"The inſide of the Haram is guarded by women, and about the gate of the royal apartments are placed the moſt confidential. Immediately on the outſide of the gate, watch the eunuchs of the Haram, and at proper diſtances are ſtationed the Rajpoots; beyond whom are the porters of the gates; and on the outſide of the incloſure, the Omrahs, the Ahdeans, and other troops, mount guard according to their rank."

"Whenever the Begums, or wives of the Omrahs, or other women of character, want to pay their compliments, they firſt notify their deſire to thoſe who

who wait on the outfide, and from thence their requeft is fent in writing to the officers of the place, after which they are permitted to enter the Haram. And fome women of rank obtain permiffion to remain there for the fpace of a month.

" BUT befides all the precautions above defcribed, his Majefty depends on his own vigilance, and that of his guards."

THE

THE ANTIQUITY OF THE PLACE.

Allahabad, 1798.

THE antiquity of this city is ſupported not only by the tales of ancient tradition, but by large fields of rubbiſh, which ſeem to atteſt its former ſplendour, as well as its remote origin. The ſoil for ſeveral miles, in the vicinity of the fort, conſiſts of mortar, broken pottery, and brick-duſt. The names of Neah Saar, and Pouranah Saar, are ſtill kept up in the language of the place; and Piague was the antient name which diſtinguiſhed both of theſe flouriſhing towns, which probably occupied theſe extenſive fields of ruins. The ſituation of Allahabad being alike convenient for the purpoſes of internal commerce and defence, muſt have early pointed it out as an eligible ſite for a town; and this circumſtance affords no ſmall probability to the reports of its former importance.

THE

THE present city, which is probably of the same date with the garrison, (the latter end of Acber's reign) exhibits that picture of poverty, ruin, and desolation, which they only can form an idea of who have visited the towns of India. The men, tradesmen, bullock drivers, merchants, and mechanics of every description, necessary to the building of this immense garrison, will hardly admit of a smaller population than twenty thousand inhabitants to the city. For many years after, as this place continued to be the capital of a rich soubadary of the empire, this population probably increased. At present though the straggling huts cover a space of five miles, the inhabitants cannot much exceed sixteen thousand. Nine tenths of all the buildings are of mud, reared upon the foundations of more substantial edifices of brick, which have long since fallen to decay.

THE far greater part of the inhabitants of India, as well as of this city, may be said literally to *dwell in, houses of clay*. The walls are constructed of the common soil dug from the spot, and wrought up into a coarse mortar, by being mixed with water and brick-dust. A small stratum is added to the wall day after day, till the whole is completed. This precaution is necessary; since the wall without obtaining hardness and consistency from the sun, could not sustain its own weight. Thus the Hindoo builds his humble dwelling with the same materials, and after the same method with the swallow; the only difference seems to be that the latter, taught by nature,

claims

claims greater antiquity, and a greater ſhare of originality of invention; the former being evidently the copyiſt in this uſeful art.

The buildings are all erected according to the caprice or convenience of each individual, who is guided by no rules either of taſte or general police in the ſize, form, or ſituation of his dwelling. Hence the ſtreets are ſometimes wide, but oftener wretchedly narrow; and they croſs each other in all directions with an irregularity which baffles deſcription. This motely aſſemblage of houſes, each roofed with tiles, or with a coarſe thatch covering, to defend it from the ſun and rains, conſtitutes the delightful *toute enſemble* of one of our largeſt provincial cities. That curſe originally pronounced againſt diſobedience, ſeems here to affect the houſes, as well as their owners: for nearly one half of this town conſiſts of naked walls, unroofed, and uninhabited, and faſt crumbling down into that "*duſt*" from which they were originally taken. If there be any exception from this obſervation, it is claimed by the *Shroffs* or bankers, and a few of the merchants. Their Serais or inns, ſeem to aſpire to a ſort of pre-eminence in wretchedneſs, from their total want of furniture, and their peculiar marks of deſolation. In theſe, however, you may ſometimes obſerve a conſiderable number of travellers regaling themſelves with their Hookahs, and retailing the news of the day with equal fluency, as your beſt coffeehouſe politicians, and like them deciding on the fate of nations, and

the conduct of ſtateſmen, with that happy confidence which ignorance or opinion alone can inſpire. If the removal of pain and laſſitude be an enjoyment, and if a profound inſenſibility to paſt or future evil be a pleaſure, theſe Muſſulmans are among the happieſt of mortals. They drown care by intoxication with opium, as effectually as Horace or Anacreon could effect it with wine; and though hoſtile to our ſyſtem, they too literally fulfil one of its precepts; "they take no thought for to-morrow."

The only buildings in this vicinity, which have the ſmalleſt pretenſions to magnificence, are the Cemeteries of the Mahommedans; who, with a prepoſterous ſolicitude, beſtow more care and expence on the abodes of the dead than of the living. The finer mauſeoleums of Sultan Chuſero, and ſome other individuals of the imperial family, are ſtately edifices adorned with *jet-d'eaus*, and ſurrounded with a beautiful garden of ten acres of land. The ſums neceſſary for keeping in repair theſe monuments of imperial grandeur, being long ſince withheld, they are rapidly haſtening to decay. In different parts, the ſuburbs of Allahabad are occupied by numberleſs tombs of Mahommedan ſaints, each provided with a ſmall niche, intended for burning a perpetual lamp, but the neceſſary funds are either exhauſted or abſtracted by their ſelfiſh poſterity, ſo that there is reaſon to apprehend that even the memorials of their ſaints will not prove everlaſting.

In almoſt every town of this part of India, the burying grounds of the Muſſulmans are ſufficiently extenſive for the whole number of inhabitants, though it is certain that ſcarcely a tenth part of the people of any diſtrict belong to that perſuaſion. Their number is decreaſing daily, notwithſtanding the caſual ſupplies it may receive by adventurers from the north. In our ſeapoy battalions a Muſſulman has of late become ſo rare, that the policy of having a proportion to balance any enterpriſe or combination of the Hindoos, can no longer be purſued.

Formerly the towns in theſe provinces were governed by a certain number of magiſtrates, and their policemen, who inſpected the markets and maintained the public order. A cutwal, a jemidar, and a wretched remnant of their eſtabliſhment, ſtill remains. Happily the Hindoo peaſantry can be controuled with a ſmaller weight of authority than almoſt any people. If countenanced in their complaints they are litigious in the extreme; yet their miſunderſtandings are chiefly pecuniary; and from the ſmall value of the conteſted property, they generally admit of an eaſy and ſummary deciſion.

Under the wretched government of the Vizier, you can hardly have any thing that merits the name of a judicial eſtabliſhment. Every petty officer is the deſpot of his little diſtrict, whoſe fiat determines every queſtion without appeal. Hence corruption is the very principle of the adminiſtration, and it pervades

every part. As if law, equity, or humanity did not exist, the person aggrieved does not appeal to them; but approaches the magistrate with a present to interest his selfishness. A method invariably successful, unless counteracted by placing a heavier largess in the opposite scale.

The defects of this miserable system of judicature, are in many instances supplied by calling in the aids of superstition. A person who has a debt owing him which he wants influence or money to recover by a judicial sentence, applies to his Brahmin, who places himself directly before the door of the debtor, where he remains day and night without eating till the claim is discharged. In the mean time, no provisions, fire or water, can be introduced into the house, which is thus beset by a Brahmin. Should the debtor prove refractory till the Brahmin died, nothing on earth can redeem his family from the infamy thus incurred. The strength of prejudice, or the cravings of hunger, generally induce the debtor to satisfy the demand without incurring the dreadful sentence of disgrace in this life, and misery in the next.

The British government which promises to hear and determine all disputes, has in some degree superseded this singular mode of prosecution; but in the Vizier's country, where I now write, the expedient is still necessary, and is sometimes put in practice: although even there the Brahminical rigour of discipline is somewhat abated. A Hindoo of considerable

siderable rank has assured me, that in former times not only the litigants but the whole village fasted so long as the Brahmin performed Dh'urnah * before any house belonging to it.

* This word signifies *to fast*; but that phrase does not express the whole of the idea.

THE

THE FANATICISM OF THE MAHOMMEDANS AND HINDOOS A BAR TO IMPROVEMENT IN AGRICULTURE.

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Allahabad, 1798.

THE conqueſts made by Europeans in India have gradually operated as a remedy againſt the cruelties and exactions of a barbarous government in theſe provinces; but another claſs of evils yet remain, which flow from the fanaticiſm or ſuperſtition of the natives; and theſe are ſcarcely leſs numerous, though unhappily more incurable. The number of religious mendicants and vagrants of all deſcriptions, is ſo great as not only to check the operations of rural induſtry, but frequently to unhinge the police, and diſturb the government under the moſt powerful ſovereigns. Tavernier has eſtimated theſe wandering devotees at an hundred and ten thouſand; but from what we read in the more authentic hiſtories, he is probably far below the actual number.

Mr.

Mr. Richardſon, author of the Arabic and Perſian dictionary, has well characteriſed them under the article Fakeer: "In this ſingular claſs of men, who, in Hindoſtan, deſpiſe every ſort of clothing, there are a number of enthuſiaſts, but a far ſuperior proportion of knaves; every vagabond who has an averſion to labour, being received into a fraternity which is regulated by laws of an uncommon and ſecret nature. The Hindoos view them with a wonderful reſpect, not only on account of their ſanctified reputation, but from a ſubſtantial dread of their power; the Fakeer pilgramages often conſiſt of many thouſands of naked ſaints, who exact wherever they paſs a general tribute, while their character is too ſacred for the civil power to take cognizance of their conduct. Every invention of perverted ingenuity, is exhauſted in diſtorting and deforming nature; ſome, of the moſt elevated enthuſiaſm, ſtriking off even their own heads on great ſolemnities, as a ſacrifice to the Ganges which they worſhip."

During the reign of Aurengzebe, while that monarch was marching into the Deccan, his baggage was attacked and plundered by a number of theſe banditti almoſt in the face of the whole army. In the time alſo of this moſt powerful of all the Mogul Emperors, the Fakeers, inſtigated by a rich old woman, named Biſtemia, actually raiſed a rebellion. This old woman was followed chiefly on account of her high reputation in the arts of magic and ſorcery. Her inchanted pot was the ſkull of an enemy, in which

which owls, bats, ſnakes, and human fleſh, formed a broth for frantic followers. No leſs than twenty thouſand of theſe fanatics, led by Biſtemia, were opposed by a General of Aurengzebe, who was inſtructed to reſiſt her by ſpells put into his hand by that Emperor. This artifice prevailed; for a battle enſued, in which Biſtemia and her whole army were cut off. Aurengzebe met his General after this exploit, and laughed with him at the ſucceſs of his ſpells.

EVEN in our own times, many bands of theſe vagabonds have been attacked and diſperſed by detachments of our troops. During the celebrated march of General Goddard, ſeveral hundred of theſe Fakeers, which he calls Pandarams, attacked and drove away ſome of his elephants and camels: theſe he ſoon recovered, by attacking in his turn the robbers, of whom he killed ſeveral: two thouſand hovered in his rear, but the experience of their brethren taught them in future to keep at a greater diſtance.

BUT no effort either of Britiſh power or policy has yet provided an adequate remedy to the evils ariſing from this fanatical ſpirit; which by abſtracting ſo many uſeful hands from induſtry, and by committing ſo many depredations upon property, continues to operate powerfully againſt the proſperity of India. The remedy applied by Aurengzebe, and ſeveral of his predeceſſors, is precarious and uncertain, and the moſt

most unlikely to be ever practiſed by the preſent rulers of the country. It was his policy, (and it was that of Acber and Jehanguir), to aſſume a high tone of fanaticiſm, and aſſert ſuch ſtrong religious pretenſions, as might either foil theſe religioniſts in a conteſt with their own weapons, or attract their veneration.

The ſtrange and impudent pretenſions of Acber, the wiſeſt of their monarchs, to the gifts of prophecy and inſpiration, could hardly have been advanced from any other motive; and without ſome motive they are altogether unaccountable.

European authors afraid, perhaps, of gaining belief, have abſtained from mentioning the religious extravagancies of this Auguſtus of the Eaſt; but Abul-Fazel, his own miniſter, may be truſted on this ſubject; and it is certain that he has employed many pages to prove his gift of inſpiration; and has devoted a whole chapter to explain his ſpiritual guidance, or power of miraculous converting profligate unbelievers.

"The aſtrologers were appriſed of this (viz. his inſpiration), from the hour of his Majeſty's nativity, and whiſpered their exultations to each other. His Majeſty, however, did for ſome time caſt a veil over this myſtery, that it might not be known to ſtrangers. But that which the Lord willeth to be done who can avoid? In his infancy, he involuntarily per-

formed ſuch actions as aſtoniſhed all beholders; and when at length, contrary to his inclination, thoſe wonderful actions exceeded all bounds, and became diſcernible to every one, he conſidered it to be the will of the Almighty, and began to teach, leading many wanderers in the paths of righteouſneſs.

"Many of his diſciples, by the bleſſing of his holy breath, obtain a greater degree of knowledge in a ſingle day, than they could gain from the inſtruction of other holy doctors, after a faſt of forty days. Numbers of thoſe who have bid adieu to the world, ſuch as Sonnaſſes, Calendars, Philoſophers, and Soffees, together with a multitude of men of the world, namely, ſoldiers, merchants, huſbandmen, and mechanics, have daily their eyes opened unto knowledge. And men of all nations and ranks, in order to obtain their deſires, invocate his Majeſty; conſidering their vows as the means of extricating themſelves from difficulty; and when they have obtained their wiſhes, they bring to the royal preſence the offerings they had vowed.

"From this great ſource of bounty, the following bleſſings have been obtained: ſucceſs in buſineſs; reſtoration of health; birth of a ſon; re-union of diſcontented friends; long life; increaſe of power and wealth. He who knoweth what will come to paſs, gives ſatisfactory anſwers to every one, and applies remedies to their afflictions; alſo many whoſe diſeaſes are

are incurable, intreat him to breathe upon them, and are thereby reſtored to health."

THE manner of teaching by the Imperial Prophet is next deſcribed by this courtly writer, and it is no leſs farcical, than his pretenſions to ſuch a gift were impudent and abſurd. When the diſciple applies to his Majeſty for inſtruction, Abul-Fazel obſerves, that out of his great wiſdom he is very backward to comply; excuſing himſelf by ſaying, " how ſhall I teach till I have myſelf been inſtructed?" But, adds the hiſtorian, if there be in any one evident ſigns of truth, and he is very importunate, he is accepted; and on Sunday, when the ſun is in the meridian, he obtains his heart's deſire. " From beholding theſe wonders, thouſands of every perſuaſion have believed on him."

" THE perſon who wants to be initiated in all righteouſneſs, places his turban in the palm of his hand, and putting his head on his Majeſty's feet, ſaith, " I have caſt away my preſumption, and ſelfiſhneſs, which were the cauſe of various evils, and am become a ſuppliant, vowing to devote the remainder of my life in this world, to the attainment of immortality." Then his Majeſty ſtretches out the hand of favour, raiſes up the ſuppliant, replaces his turban on his head, ſaying, " my prayers are addreſſed to heaven for your ſupport, in order that your aſpiring inclination may bring you from ſeeming exiſtence, into real exiſtence."

To the practice of such contemptible mummery, did the great Acber submit; a monarch whose name is repeated in the East with exultation, and whose reign of fifty years constitutes the brightest period of the annals of Hindostan. It may be difficult to ascertain how far this conduct was produced by spiritual pride and fanaticism in himself; or by political views of attempting to guide in a harmless direction the enthusiasm of his people. It is however certain, that the remedy has been temporary and precarious: it has increased already the flame of fanaticism; in the hands of his successors the engine has often proved unmanageable. With them the ill extinguished flame has ever been ready to burst out afresh; and to guide the enthusiasm of the people, has been found to be the prerogative of him only who can sit in the whirlwind and direct the storm. Perhaps the tolerating principles of the British Government, administered by the moderation and good sense of individuals, may gradually allay and wear out the strength of a passion which no human power has ever been able to resist or controul.

Sir Thomas Roe, Ambassador of the India Company at the Court of Jehanguir, is the only English writer who notices this assumption of prophetic gifts as a part of the state policy of the Mogul Princes. His letter to the Archbishop of Canterbury, dated at Agimere in 1616, will shew that even in these early days of our connection with Asia, many efforts were made for the conversion of the natives, and from

from the sentiments of the monarch, much more sanguine hopes might have been entertained than circumstances have warranted since that time.

"The Mahommedan Mulhavies know somewhat of philosophy and mathematics, are great astrologers, and can talk of Aristotle, Euclid, and other authors. The learned tongue is the Arabian. In this confusion they continued to the time of Acber Shah, father to this king, without any knowledge of Christianity. Acber Shah being a prince by nature just and good, inquisitive after novelties, curious of new opinions, and excelling in many virtues, particularly in piety and reverence towards his parents, called in three Jesuits from Goa, the chief of whom was Jerom Xaverius of Navarre. After their arrival, he heard them discourse with great satisfaction, and caused F. Xaverius to write a book in defence of his religion, against both Moors and Gentiles; which, when finished, he read every night, and had some part discussed. Finally he granted them his letters patent to build, preach, teach, convert, and to use all their ceremonies as fully as in Rome, bestowing on them means to erect their churches, and places of devotion. In this part he gave liberty to all sorts of men to become Christians, even to his own court and blood, professing it should be no cause of disfavour. Acber Shah himself continued a Mahommedan, yet he began to make a breach in the law; for considering that Mahommed was but a man, and

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a king as he was, and therefore reverenced, he thought he might prove as good a prophet as himſelf.

"THIS defection of the king ſpread not far; a certain outward awe withheld him, ſo he died in the formal profeſſion of his ſect. Jehanguir Shah his ſon, the preſent king, being the iſſue of this new fancy, and never circumciſed, bred up without any religion at all, continues ſo to this hour, and is an atheiſt. Sometimes he will profeſs himſelf a Mahommedan, but always obſerves the holidays, and does all ceremonies of the Gentiles. He is pleaſed with all religions, but loves none that changes; and falling into his father's conceit, has dared to proceed farther in it, to profeſs himſelf for the main of his religion to be a greater prophet than Mahommed, and has founded to himſelf a new one, being a mixture of all others. which many have received with ſuch ſuperſtition, that they will not eat till they have ſaluted him in the morning; for which purpoſe he comes at ſun-riſe to a window, open to a great plain before his houſe, where multitudes attend him. When the Moors about him talk of Mahommed, he will ſoothe them, but is glad when any one will laſh out againſt him. Of Chriſt he never utters a diſreſpectful word, nor do any of all theſe ſects; which is a wonderful ſecret working of God's truth, and worth obſerving.

"As

" As for the new planted Chriſtian church, he confirmed and enlarged its privileges, ſpending two hours every night for a year, hearing diſputes; often dropping words of his converſion, but to a wicked purpoſe. To give the more hope, he delivered many youths into the hands of F. Franciſco Corſi, ſtill reſident here, to teach them to read and write Portugueze, and to inſtruct them in human learning, and the law of Chriſt. To that purpoſe the father kept a ſchool ſeveral years, to which the King ſent two princes, his brother's ſons, who being brought up in the knowledge of God, and his Son our bleſſed Saviour, were ſolemnly baptized in the church of Agra, with great pomp; being firſt carried up and down all the city on elephants in triumph; and this by the King's expreſs order, who would often examine them to ſee what progreſs they had made, and ſeemed well pleaſed with them. This made many bend the ſame way, being ignorant of his Majeſty's intention; others, that knew him better, ſuppoſed he ſuffered this in policy to render theſe children odious to the Moors for their converſion, the ſtrength of his eſtate conſiſting in them.

" But all men miſtook his deſign, which was thus diſcovered: When theſe and ſome other children were ſettled, as was thought, in the Chriſtian religion, and had learnt the principles thereof, as to marry but one wife, not to be coupled

with

with infidels, &c. the King ſent the boys to demand Portugueze wives of the Jeſuits; who thinking it only an idle notion of the boys, chid them, and ſuſpected no more. But that being the end of their converſion, to get a woman for the King, and no care being taken in it, the two princes came to the Jeſuits, and delivered up their croſſes, and all other tokens of their religion, declaring they would be no longer Chriſtians, becauſe the King of Portugal ſent them no preſents, nor wives, as they expected.

"The father ſeeing this, began to doubt that there was more in it, than the boys diſcovered, eſpecially ſeeing their confidence, that had caſt off the awe of pupils; and examining the matter, they confeſſed that the King had commanded them. The Jeſuits refuſed to receive their croſſes, anſwering that they had been given by his Majeſty's order, and they would not take notice of any ſuch ſurrender from boys, but bid them deſire the King to ſend one of thoſe who are, according to order, to deliver all his commands, whoſe words are by privilege a ſufficient warrant, and then they would accept of them; hoping the King would not diſcover himſelf to any of his officers in this pitiful plot. The boys returned with this meſſage, which enraged the King; but being deſirous of breaking up the ſchool, and withdrawing the youth without noiſe, he bid them call the Jeſuits to the womens

door,

door, where, by a lady, he gave the order; and without ever taking any notice ſince of any thing, his kinſmen were recalled, and are now abſolute Moors, without any taſte of their firſt faith: and here ended the converſions of theſe infidels."

AGRICULTURAL PROCESSES IN THE DOOAB.

. . . .

Allahabad, 1798.

THE expence and profits of husbandry in this part of India, it is not easy to ascertain, and there has hitherto been few attempts to illustrate this subject.

ON the banks of the Jumna, which I am now approaching, I have fortunately obtained a few sketches from a very intelligent officer *, whose enquiries were made personally, and on the spot.

WHEAT is a principal crop in this district; and the land most favourable to it, is a rich sandy loam, a very common soil here.

WHEREVER

* Captain Hoare, assistant surveyer.

WHEREVER the land is ſituated beyond the reach of the river, manure is as neceſſary as it is in England; and all ſorts of it would no doubt be employed that did not interfere with the prejudices of the people. Human ordure is of this claſs, and unfortunately their predilection for cow-dung in plaiſtering their walls, and as fuel, operates againſt the extenſive uſe of this important article in rural economy. The lands thus become ſo impoveriſhed as to defeat the purpoſe of cultivation; and when this is the caſe they turn ſheep upon them, a ſlight ſubſtitute, and ſlow in recovering them.

THE commencement of rain in June, is the ſeaſon when they begin to plough; and a ſingle ſtirring is only given till the period when they ceaſe. The field is then ploughed fifteen different times before the reception of the ſeed, a circumſtance which fully proves the inefficacy of the Indian plough. The harrowing, or rather rolling, is performed by means of a large log drawn twice or thrice over the land by two oxen. The ploughing, if it deſerves that name, is performed with great expedition, from the lightneſs of the implements, and the ſlight impreſſion made upon the ſoil. A biggah, which is reckoned one third of an acre, is tilled by one man and two cattle, many different times in a day. September and October are the months of ſowing, and the quantity thrown upon a biggah is thirty ſeer, or nearly one Wincheſter buſhel.

The weeding of wheat is not an uniform practice; between the different ploughings, however, the labourers are employed in gathering up the roots of such weeds as might vegetate. When these operations are compleated, and the grain sown, vegetation proceeds with great rapidity; and the universal dryness of the cold season in India, imposes new labours upon the husbandman, who is obliged to water his crop three several times. The first watering is given when the grain has risen six or seven inches above the mould, and the successive repetitions of it as the convenience of the former, or the necessity of his fields may require. The watering land is a task far more laborious than the cultivation of it. Four bullocks, and three waterers, are with difficulty able to water an acre in nine days. In some situations the water is raised from wells in the manner I have described in a former letter; in others it is carried in bags, four men to each, from tanks. As these reservoirs may be at a greater or smaller distance, the labour and expence must be various; in all situations both are considerable.

The price of labour is in this district, about two rupees, eight anas per month, or one ana and a half per day. The practice of giving perquisites in kind to labourers, which lately prevailed in Scotland, is found here: Each labourer, beside the wages already specified, receives one coarse blanket annually, and three, or sometimes four maunds of wheat at reaping time. The wages of a ploughman, reaper, and

waterer,

waterer, are nearly the ſame; their emolument in a plentiful year, though only about three-pence of our money, yields a pretty abundant ſupport; and where wages are higher than neceſſary to ſubſiſtence, the ſame pernicious idleneſs and diſſipation, remarked in the labourers with you, are prevalent here.

The protection of the ſeed and crop is neceſſary all over this country: ſo numerous are the predatory enemies of the poor ryut. A woman or a boy is placed to watch the field, and prevent the incurſions of the deer and wild hogs; who as well as the birds are extremely deſtructive.

The average produce of a biggah in this diſtrict, is reckoned fifteen maunds, the Ayeen Acbery ſtates it at eighteen; but this muſt be underſtood of the beſt *(poulylands)* crofts. An exact account of the taxes paid by each diſtrict, and the rent-roll of each proprietor, in the time of Acber, may be deemed a great acquiſition, towards a ſtatiſtical account of Hindoſtan; ſince it furniſhes a point of compariſon between that and the preſent time.

In every country artificers and tradeſmen are neceſſary to aid the huſbandman. Simple as the rural implements of the Hindoo are, he requires for their conſtruction and repair the labour of a blackſmith, and ſometimes of a carpenter. The pay of each for keeping one plough in ſufficient order, and the other implements of a farm, is in kind, being twenty ſeer

of

of wheat annually. Charitable inſtitutions, and a ſtated proviſion for religious purpoſes, are alſo levied upon the farmer, who pays from fifteen to twenty ſeer yearly, for each plough he employs.

ANOTHER conſiderable burden is the maintenance of his cattle; a number are abſolutely neceſſary to almoſt every operation, whether of ploughing, harrowing, watering, or thraſhing. The laſt proceſs is in the Eaſt more properly termed *heading out* the the grain. It is performed by five or ſix oxen, travelling round upon the ſame floor; when employed in this labour, the muzzling of them is expreſsly forbidden by the Hindoo laws. But here neceſſity often ſuperſedes it; and a poor Ryut, in a bad ſeaſon, is compelled to limit the privileges of the ox, in order to preſerve his ſtarving family. Probably the Jews, who were bound by a ſimilar precept, were alſo ſometimes urged to infringe it, by the ſtrong influence of the ſame motive. The herdſman is alſo a neceſſary part of the expence of keeping cattle; his pay conſiſts of a blanket annually, and half an ana per month for each bullock; if, however, the herd is numerous, he receives only a limited ſum for the whole.

THOUGH wheat be the prevailing crop on the Jumna towards Agra, and Delhi, it is by no means the only produce. On the contrary, the ſame practice obtains here, which I have elſewhere noticed, of ſowing different crops on the ſame ground; particularly

cularly ſuch as come to maturity nearly at the ſame time. *Jeaw* (barley), *muttur* (peas), ſome of the oil crops, and the yellow dye, called *khooſoom* (a marigold), are often mixed with wheat, a mode of huſbandry followed in ſome parts of Britain, but always injudicious. Other miſcellaneous crops are alſo ſown, but not promiſcuouſly with wheat, which come to maturity at different times; and this appears better huſbandry, though perhaps ſtill incorrect.

The average rent of wheat land is about two rupees and a half per biggah, which is nearly one pound ſterling per acre. One half of the produce is alſo a common rent, in this tract; and where that is the agreement, an overſeer, on the part of the farmer and landholder, attends on the reapers, his wages paid by the latter: ſuch overſeers are common in every village. When the rent is paid in caſh, a *Muſhabut* (meaſurer), is employed, who receives one half ana for each biggah, under his charge. The ſame ſum is allowed to the *Ameen*, or ſuperintendant of the meaſurer.

The extent of farms is in this country very limited, for it muſt bear a proportion to the capital of the tenant which is generally ſmall: nor is there here the ſame opportunity afforded of adding to his ſtock, what he can raiſe by credit;

as the intereſt of money is ſo great, the expedient would prove ruinous. Hence the ploughman is frequently the occupier of the farm, and his intereſt in it is only annual. With one plough he can cultivate about ſixteen biggahs, or five acres, an extremely ſmall poſſeſſion, but his wants and expenditure are equally limited. A ſmall piece of cloth around his middle, generally with one coarſe blanket, and a ſort of turban, conſiſting of a cotton clout, make the whole of his wardrobe. His food is the cheapeſt grain and vegetables; a little ghee, with a pinch of ſalt between his finger and thumb. Such is the mode of life providence has allotted for many thouſand years to the Hindoo farmer; a lot which the fanciful Abbé Raynal has painted as ſo angelical. His picture is indeed beautiful; but it bears not the ſmalleſt reſemblance to the original.

If, however, the mere production, and preſervation of human life, without any regard to knowledge or enjoyment, be an advantage, this ſtate of huſbandry may be regarded in a favourable point of view; for it ſeems as well calculated for population as any other. A family, conſiſting of a wife, children, and a few ſervants, maintained on every five acres arable, and as much waſte land, implies a great number of inhabitants; and probably the whole of Hindoſtan is capable of being brought to this ſtate. But the ſubſiſtence of ſuch a family,

family, allowing one half of the produce to the landholder, ſeems to be reduced to two pounds ten ſhillings of our money; a revenue ſo ſlender, as to exclude every idea of enjoyment except the preſervation of life.

OF THE CULTURE OF THE PALM TREE, AND THE BAMBOO.

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Allahabad, 1798.

THE Palm tree, next to the bamboo, is the moſt univerſally uſeful which India produces; and is therefore cultivated in almoſt the whole peninſula, as well as in the iſlands. Of the three different ſpecies, the firſt and moſt uſeful is the *Cocoa* nut tree, which grows almoſt perfectly ſtraight, to the height of forty or fifty feet; and is nearly one in diameter. It has no branches, but about a dozen leaves ſpring immediately from the top: theſe are about ten feet long, and nearly a yard in breadth towards the bottom. The leaves are employed to cover the houſes of the natives; to make mats either for ſitting or lying upon. The leaf when reduced to fine fibres, is the material of which a beautiful and coſtly carpetting is fabricated, for thoſe in the higher ranks; the coarſer

coarser fibres are made into brooms. After these useful materials are taken from this leaf, the stem still remains, which is about the thickness of the ankle, and furnishes firewood.

The wood of this palm, when fresh cut, is spungy; but like that of the palm tree, it becomes hard, after being seasoned, and assumes a dark brown colour. On the top of the tree, a large shoot is produced, which when boiled resembles brocali, but is said to be of a more delicate taste; and though much liked, is seldom used by the natives; because on cutting it off the nith is exposed, and the tree dies. Between this cabbage-like shoot, and the leaves, there spring several buds, from which, on making an incision, there distills a juice differing little from water, either in colour or consistence. It is the employment of a certain class of men to climb to the tops of the trees in the evening, with earthen pots tied to their waists, which they fix there to receive the juice, which is regularly carried away before the sun has had any influence upon it. This liquor is sold in the Bazars by the natives, under the name of Toddy. It is used for yest, and forms an excellent substitute. In this state it is drunk with avidity, both by the low Europeans and the natives; and is reckoned a cooling, and agreeable beverage. After being kept a few hours, it begins to ferment, acquires a sharp taste, and a slight intoxicating quality. By boiling it, a coarse kind of sugar is obtained; and by distillation, it yields a strong ardent spi-

rit,

rit, which being every where ſold, and at a low price, conſtitutes one of the moſt deſtructive annoyances to our ſoldiers.

The name given to this pernicious drink by Europeans, is Pariah Arrack, from the ſuppoſition that it is only drank by the Pariahs, or outcaſts, that have no rank. It is true that no Hindoo of any of the four caſts is allowed by his religion to taſte any intoxicating liquor; and in general this reſtriction is only violated by ſtrangers, dancers, players, and outcaſts. There are, however, exceptions; and I have myſelf ſeen a Hindoo confeſs that he was drunk, who did not ſeem to be deſerted by his companions on account of that *faux pas.* The liberties which Muſſulmans take with the precepts of their religion are notorious. The wine or liquor mentioned by Quintus Curtius as a drink of the natives, may have been the liquor uſed by the Greeks.

The trees from which the toddy is drawn, do not bear any fruit; but if the buds be left entire, they produce cluſters of the cocoa nut. This nut in the huſk, is as large as a man's head; and when ripe falls with the leaſt wind. If gathered freſh, it is green on the outſide; the huſk and the ſhell are tender. The ſhell, when diveſted of the huſks, may be about the ſize of an oſtrich's egg, and is lined with a white pulpy ſubſtance, which contains about a pint and a half of liquor like water; and though the

the taste be sweet and agreeable, it is different from that of the toddy.

In proportion as the fruit grows old, the shell hardens, and the liquor diminishes, till it is at last entirely absorbed by the white milky substance; which gradually acquires the hardness of the kernel of the almond, and is almost as easily detached from the shell. The natives use this nut in their victuals; and from it they also express a considerable quantity of the purest and best lamp oil. The substance which remains after this operation, supplies an excellent food for poultry and hogs. Cups, and a variety of excellent utensils are made of the shell; many of which you must have noticed on our European tables.

The husk of the cocoa nut is nearly an inch thick, and is perhaps the most valuable part of the tree; for it consists of a number of strong fibres, easily separable, which furnishes the material for the greatest part of the India cordage; but is by no means the only substitute which the country affords for hemp. This the natives work up with much skill.

The Palmyra, or as it is called by the Portugueze the *palmeiro bravo*, a name borrowed from them by the English, is taller than the cocoa tree; and affords still greater supplies of toddy; because its fruit is of little request from the smallness of its size;

ſize; the produce of the tree is therefore generally drawn off in the liquid ſtate. This tree, like the cocoa, has no branches; and like it too ſends forth from the top a number of large leaves, which are employed in thatching houſes, and in the manufacture of mats and umbrellas. The timber of this tree is much uſed in building.

The Date tree being ſmaller makes not ſo conſpicous a figure in the Indian foreſt as the two laſt deſcribed. Its fruit never arrives at maturity in India: toddy is drawn from it, but not in ſuch quantity, nor of ſo good a quality, as that which is produced by the other ſpecies of the ſame genus. The India date tree is therefore of ſmall value comparatively with the palmyra, and that is much inferior to the cocoa.

The Bamboo is the moſt uſeful of all trees to the natives: in India as well as China, this tree has degenerated into above fifty different ſpecies, which are applied in rural economy to ſtill a greater number of uſes. It is called by botaniſts Arundo bambos, and Arundo arbor, names firſt given by the Portugueze from the violent exploſions it makes in the fire, cauſed by the expanſion of the air between the knots.

Pliny ſpeaking of this tree, has been guilty of an exaggeration, or perhaps a miſtake, in aſſerting that a ſingle one is ſufficient to make a boat: *Navigiorum etiam vicem præſtant, (ſi credimus) ſingula inter-*

nudii. The truth is, that when made into a frame, and covered with a hide, it ferved this purpofe in the fame manner as the Coracles of the ancient Britons; and in this way it was frequently ufed by the troops of Hyder-Ally in croffing rivers. The bamboo in its natural ftate being no thicker than a man's thigh, cannot fingly fupply the place of a canoe.

What is moft remarkable of the bamboo is the rapidity of its growth, and the fhort fpace in which it arrives at perfection. Its immenfe height is completed in a fingle year; and during the fecond its wood acquires all that hardnefs and elafticity which renders it fo ufeful for the various purpofes to which it is applied. As the growth of the moft rapid of our timber trees is incomparably flower, and the number fewer on the fame fpace of ground, it may not be rafh to affirm, that a fingle acre of thriving bamboos will furnifh as much wood as ten or fifteen of any other tree.

The joints either are, or can eafily be made watertight, when they are ufed as pitchers for water, oil, or other liquids. This tree is often applied for making mats, and bafket work, for the frames of flender houfes, whofe roofs are of the fame material: its toughnefs and fiffibility, render it peculiarly fit for all thefe purpofes; as well as carts, beds, rigging of boats, and various other ufes in rural economy.

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The thick inſpiſſated juice of this reed, called *ſacar mambu*, is of a grateful taſte, and has long been a favourite medicine in the Eaſt, without perhaps much accuracy of diſcrimination of the caſes where it might be beneficial. This ſacarum is ſaid to be ſtill uſed by the *Hakims* in medical preſcriptions.

The bamboo grows in ſtools, of twenty or thirty from the ſame bottom, in the manner of our oaks after being cut over. It riſes to a great height, ſpreading as it advances, till it meets with the adjoining ſtools, and thus it completely excludes the rays of the ſun from the intervening arches; the colour of the reeds is at firſt green, and afterwards a pale yellow, affording to the natives a delightful retreat from the rays of the ſun, and as ſome ſuppoſe, the primitive model of the Gothic arch.

OF

OF THE MANUFACTURE OF SUGAR, AND OF SILK.

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Chunar, 1798.

It is fortunate for Great Britain that ſhe is not dependent on her Weſt India iſlands for the articles of ſugar and rum, which are now become in ſome meaſure neceſſaries of life to a large portion of the inhabitants. The havoc made by that deſtructive climate, will neceſſarily become more ſenſibly felt in proportion as foreign territories are enlarged; the mortality in time of war, among the troops neceſſary for the defence of theſe iſlands, muſt in time become ſo heavy a drain upon the effective ſtrength of the nation, as may render it a politic meaſure to abandon them to their fate.

In that event, Bengal will furniſh an ample ſupply of the above-mentioned articles, for its capacity of

producing them at a much cheaper rate is fully esta-blished *. In the British West India islands, sugar costs the planter at an average 1l. 18s. per cwt. allowing the rum to defray the contingent expences of his estate; while in Bengal it has been shewn by the best informed men in this country, that the same quantity can be manufactured at nearly 4s. 8d. sterling. The ease, simplicity, and cheapness of cultivation, will account for this great difference, in conjunction with the low price of labour, which, at a medium, does not amount to two-pence a day for each workman. In some places labour may be purchased still lower; and being paid frequently in grain it is still more lightly felt by the cultivator.

The utensils, stock, and slaves, are very expensive in the one country; in the other comparatively nothing. A mill constructed of two wooden rollers, in value one rupee, with a few earthen pots, is the whole out-laid stock in many districts; in others, where the cattle mill is used, the expence is still within the fortieth part of what the most trifling work would cost in the West Indies. The extensive wastes capable of producing abundantly, but unproductive merely from want of cultivation, afford a wide range for this culture, without much additional expence for the rent of land. In Jamaica we are informed, that to clear and settle a plantation capable

* Vide an address to the Gov. General in 1788.

ble of producing 100 hhds. of sugar annually, would require an advance of 20,000l. for mills, utensils, and necessary erections. If even all these charges could be avoided, still the price of labour would prevent a competition in these islands, where it is said to amount to two thirds of the whole cost of sugar. The planter who hires the labour of other slaves, which is frequent, and this is perhaps nearly the price at which labour can otherwise be procured, pays one shilling and seven-pence daily for each slave, or about ten times the wages of a Bengal labourer.

These facts have been submitted some time ago to the public, by a respectable merchant in Calcutta, and as they become more generally known, will perhaps bring the labour of slaves into greater disrepute, than general arguments against the equity of that traffic. They will probably suggest the propriety of employing the large proportion of shipping in the port of Calcutta in this trade, rather than allowing it to be engrossed by foreign merchants. American and Danish ships, or vessels under these colours, are annually increasing in the port of Calcutta; if by their means the foreign market be more cheaply supplied, the time may come when they may supersede in a great measure the other traders.

Such facts, if found true in experiment, will plead the expediency of relieving Great Britain, from the heavy burden of the defence of the West Indies; and

and of exonerating its inhabitants from that enormous tax they pay in the high price of ſugar, and of admitting the great body of the natives of India to employ their labour on a large branch of cultivation, for which nature ſeems to have adapted their country †. But it is the buſineſs of private individuals to ſtate facts that come under their notice; to frame regulations is the province of their ſuperiors.

We have already noticed ſome particulars relative to the produce of ſilk, with which India ſeems to have ſupplied the market of Europe from the earlieſt times. Greece, Italy, and France have in ſubſequent periods ſupplanted the natives in this trade, in the ſame manner that America has done with regard to indigo.

A conſiderable quantity of ſilk is produced in the countries on the north eaſt of Bengal, from wild worms, and worms fed on other plants than the mulberry. Some of this is exported to the weſt of India, and part reaches Europe. The Bengal ſilk produced in the filatures of the natives, is deemed inferior to the beſt Italian. That defect has not yet been accounted for; nor is it aſcertained whether it be owing to defective manufacture, or a wrong treatment of the worms. Five varieties of the ſilk worm are known; but that is preferred, which, from its

† Vide remarks on the Agriculture of Bengal.

its name, has been deemed indigenous. When young they all require to be fed with leaves cut very fine; but as they advance in growth, their food is less minutely cut, till at last the leaves are given entire. In little more than a month they arrive at their full size; after changing their skin for the last time, they begin their cocoons. They are then removed into baskets, with separate apartments, where they spin their web. The cocoons being compleated, a few are set apart for propagation, the rest are placed in the heat of the sun, to kill the chrysalis.

The peasants sell their best cocoons to the Company's filatures: from such as are rejected, they wind off the silk. The cocoons, as a preparation for this, are put into a hole dug for the purpose, with the excretions of the worms collected from the baskets in which they were fed. A little water is then added, and the whole covered up to effervesce for two days. They are then removed and boiled in an earthen vessel; when the silk is wound off by a hand reel.

The expence of first planting the mulberry in a biggah of land, including ploughing, hoeing, weeding, and other charges, may at a medium amount to fourteen rupees; and the charge annually after may be estimated at nine rupees. The plant is frequently sold to the feeders by the load, and the usual price is about twenty rupees per biggah; if from this the annual charge of culture, and the interest of money

money advanced during the firſt year be deducted, a profit to the cultivator of between three and four rupees will remain ‡.

The ſeveral profits of the feeder, ſpinner, and reeler of ſilk, cannot be properly aſcertained; but as the profits of different kinds of labour balance each other, they are probably very nearly on a footing. From one biggah of land two mauns of cocoons may be produced, at eighteen rupees per ſeer when reeled. The reeling is a tedious operation, and adds about a rupee and a half to the price of the ſeer of ſilk. Two ſeer of reeled ſilk is the produce of one maun of cocoons; and this on an average is reckoned worth fifty ſhillings.

These eſtimates to be accurate would require allowance for that ſilk of inferior quality uſed for the India market, which reſembles that known in Italy by the name of Floretta Another coarſe produce is obtained from the fur picked off from the cocoons; it is ſpun into yarn, and manufactured into carpets.

The hand reel in this country participates ſtrongly of the ſimplicity and cheapneſs of all the implements employed by the natives The wheel for cotton ſpinning may be conſtructed for a few anas; although

‡ For a detail of theſe calculations, vide Remarks, &c.

though it performs the ſame work as our ſpinning wheels, and upon ſimilar principles. I have only obſerved women at this employment; and in a country where the manufactures are perfectly calculated for their labour, it is ſurpriſing how ſeldom they are employed. Induſtry can hardly be ranked among their virtues. Among all claſſes it is neceſſity of ſubſiſtence, and not choice, that urges to labour: a native will not earn ſix rupees a month, by working a few hours more, if he can live upon three: and if he has three he will not work at all.

CULTURE

CULTURE OF OPIUM AND TOBACCO.

....

Benares, Nov. 1797.

Opium is cultivated in this neighbourhood, and that of Patna to a confiderable extent; for it conftitutes a branch of the commerce which Bengal carries on with Europe, China, and other parts to the eaftward, of no fmall importance. The virtues of this vegetable production as a medicine have long been fo well known, that they require no illuftration. In Afia, however, this drug conftitutes one of the luxuries of life almoft in univerfal ufe. It fupplies the place of fermented liquors; and operates upon the conftitution with equal violence. The Turks in Europe are fond of it to excefs and fo are the whole of the inhabitants to the eaft of India.

It is difficult to determine whether the ufe of opium or of fermented liquors is moft detrimental to fociety:

society: unhappily the victims who fall a slave to either, are ensnared by a habit which they find it impossible to relinquish; because the constitution, when habituated to a strong stimulus, becomes incapable of carrying on the functions of life without continual excitement; which of itself brings on debility and premature decay. The Nabob of Oude; who died a few weeks ago, had accustomed himself to excessive dozes of it, which is said to have shortened the period of his life.

Opium is the produce of a species of the poppy, Papaver *somniferum*, whose root and stem become pretty large, and abound with a bitter juice. The stalk of this plant rises to the height of three or four feet, and produces oblong indented leaves, resembling those of the lettuce, while the flower has the appearance of a tulip. When at full growth an incision is made at the top of the plant, from whence there issues a white milky juice, which congeals before it is gathered. This operation upon the plant is repeated two or three times; but every succeeding produce becomes less abundant and of inferior quality. After these processes the opium is kneaded with water till it assume the consistence of pitch, when it is made into small cakes.

The opium of Bengal, like the other vegetable produce of this country, is far inferior in strength to that of Europe; and this being perfectly ascertained it is administered by the medical practitioners in

far greater quantity: In part, however, this may be owing to the imperfection of the art of purifying among the natives.

The culture of this drug is a branch of agriculture long known to the natives of theſe provinces; but for the improvement and extenſion of it, they are probably much indebted to the interference of Europeans reſiding among them. It requires the beſt ſoil well manured; and the crop demands much labour and attention, during its whole progreſs, while the produce is not reckoned equally valuable to that of ſugar or tobacco. Except in a few ſituations, the natives are not deſirous of cultivating opium. The money advanced by the contractor, and the expectation of his countenance and intereſt, induces them to embark in the buſineſs, rather than any ſanguine hope of profit.

The produce of an acre is more variable and uncertain under this than perhaps any other crop. It has been eſtimated at ſixty pounds weight per acre by ſome, and at thirty by others; the laſt is probably the juſteſt average *.

A ſmall quantity of ſeed yielding oil to the value of two or three rupees per acre, is the grower's only advantage, beſides the raw juice of the poppy which he

* Vide Remarks, &c. p. 80; alſo Dr. Keir.

he delivers to the contractor, at a certain price fixed by the contract. The medium rate may amount to one rupee for five quarters of a pound weight of this juice.

THE poppy land muft be thoroughly pulverifed by twelve or fifteen ftirrings before the feeds are fown; and at that period, too it muft be raifed in ridges for watering: feveral weedings, a dreffing of manure, and frequent irrigation, fucceffively follow during the growth of the plant. That is no fooner compleated, than a very confiderable labour commences in gathering the juice; during two or three weeks a number of perfons are employed in making incifions with a fmall inftrument in each capfule; and in the morning they return to fcrape off the juice exuded from the wounds.

A produce of between twenty and thirty rupees each acre is, perhaps, a more fcanty reward for fo much labour, than what is afforded by a crop of corn: But to Europeans the trade is fafcinating: its actual produce almoft never coincides with the true average. If infects, wind, rain, or hail deftroy the crop of one feafon; another year, peculiarly fortunate, perhaps enriches the whole cultivators. This hazard inftead of checking, encourages individuals, in proportion to their hopes of perfonal good fortune.

THE

THE raw juice being thus procured, the preparation of it is carried on under the immediate ſuperintendence of the contractor. The proceſs conſiſts of evaporating the watery particles by the heat of the ſun; which are replaced by oil of poppy ſeed, to prevent the drying of the reſin. The opium is formed into cakes, covered with leaves of the poppy; and when ſufficiently dry is packed in cheſts with the chaff of poppy ſeeds.

MUCH precaution is neceſſary in this proceſs to detect adulterations, which are frequent both in raw and purified opium. The materials of adulteration are not eaſily diſcoverable, they have been ſuppoſed to be an abſtract from the ſtalk and leaves of the poppy, and gums and reſins of various plants.

THE facility of adulteration ſeems to juſtify the monopoly reſerved by the Hon Company of this drug; perhaps too in a moral view it is defenſible, as it is certainly a matter of ſound policy to diſcourage the internal conſumption of it among the inhabitants. In China it is prohibited §; but China notwithſtanding is the great market for opium; for there, as every where elſe, vicious appetite is often ſtronger than legal reſtraint.

TOBACCO

§ Hoopoo's proclamation againſt it at Canton, Aſiatic Regiſt. Vol III.

TOBACCO is a very general produce in the northern and weſtern provinces: It requires as rich a ſoil as opium, and an equal ſhare of manure; and therefore it is moſt frequently raiſed on the rich ſpots interſperſed among the dwellings of the peaſantry. It has been calculated that this article may be raiſed, ſhipped, and carried to market, at the low price of two rupees a maund, or about thirteen pounds ſterling per ton. In every diſtrict where tobacco is raiſed, it requires a laborious cultivation, but more particularly in the ſouthern diſtricts where the ground is *made* for it. Tranſplanting is neceſſary, one or two weedings, and one hoeing with the hand; during the growth of the plant it is frequently viſited by the labourer, to break off the heads of the ſtalk, and to pick the decayed leaves. When gathered, it is dried by being ſuſpended on beds of withered graſs, by means of ropes; but in this proceſs it muſt be ſheltered from the exceſſive heat of the ſun, and from the dews of the night.

BETWEEN 16 and twenty mauns of tobacco is reckoned a medium produce from three biggahs, which yields a conſiderable profit to the grower, though valued only at a rupee each maun. In theſe provinces a ſufficient number of hands, and perhaps a ſufficient quantity of land could be afforded for the ſupply of the whole market of Europe. Some attempts have been made to export it thither; but it is conceived that the ſpecies cultivated here is too weak

to ſuit that market. From what I have obſerved with regard to the flavour and ſtrength of other vegetables produced in this climate, I ſhould conclude the Bengal tobacco to be weaker, though of the ſame ſpecies; but admitting that the article could be produced of the ſame quality, and prepared to fill the Europe market, it is probable a leſs produce would be drawn at an average from the acre, becauſe a greater extent of cultivation ſuppoſes an inferiority of ſoil, ſince the choice land is already occupied.

The known enterpriſe of Europeans would however probably more than counteract every adverſe circumſtance, whether ariſing from the ſoil, or the diſtance of the carriage. The effect of large capitals inveſted in the trade, would go to reduce the original coſt, which has hitherto been enhanced by the number of intermediate dealers on ſmall ſtock.

In the Indigo branch, European capital and enterpriſe has already been attended with this conſequence. This dye, from its name, (Indicum) appears to have been known in the country from the earlieſt times; and till ſupplanted by the American produce actually ſupplied the European market. The capital of Europeans, and their ſkill, has again extended the exportation perhaps beyond its ancient limits, certainly beyond the former quantity.

It

It is not from raiſing ſmall parcels on a few Biggahs of ground, that competent ſkill or economy of labour can be acquired. Yet this has been invariably the management of natives in the culture of tobacco and indigo. In the latter ſome improvements indiſputably valuable, have lately been made, particularly in the ſeaſons of ſowing, and the number of crops; in drying the ſtuff by artificial heat; in contriving a proceſs to prevent injury by worms; and in the ſuperior fineneſs of the article.

By theſe means, from being an inconſiderable produce, the indigo has become an object of great importance; and it is probable that the ſame enterpriſe, were it applied to the culture of tobacco, and other articles, would be rewarded with ſimilar ſucceſs. The docility of the natives, their poverty, and want of ambition, though adverſe to them as proprietors of works, on their own account, qualify them for ſervants to Europeans. Employment under them for a certain monthly hire would prove a vaſt melioration of the condition of thouſands in India, and add to the trade and comfort of the country.

They who have a ſyſtem to maintain, muſt defend it at all hazards; it is for them to rail againſt monopolies, and reprobate all connection with Aſia; but an unprejudiced perſon who has reſided any time

time in the country muſt have diſcovered an infinite number of advantages which European intercourſe has produced, and which it muſt continue to produce. The ingenious arguments of Dr. Smith upon this ſubject, are pleaſing in a ſyſtem of commercial freedom; but are in many inſtances inapplicable to human affairs.

SALTPETRE

SALTPETRE AND OTHER ARTICLES PRODUCED IN THE DISTRICT.

. . . .

Benares, 1798.

You must frequently have heard mentioned the common process by which saltpetre is obtained from earth impregnated with its particles. It is reproduced in the same earth in the course of two years, when the process may again be repeated with equal success. In the second process a small portion of fresh earth must be added, to prevent the nitre from running into too small chrystals. The tracts parched by the hot winds, form a boundary to which this manufacture is limited; and it has been observed that during these winds the production of nitre is the most abundant. It has been supposed, that as the hot winds have lately, in the change of seasons, extended their influence into the province of Bengal,

the manufacture might fucceed in the lower di-ftricts.

Saltpetre is at prefent manufactured in Behar, and the provinces weft of it, to the annual amount of 200,000 mauns. The price to the India Company, who export the far greateft part of it, is about two rupees per maun. The reft paying duty and carriage, with profits to intermediate dealers, rifes to double the above price. The trade during the prefent war, has been prohibited to private dealers and foreigners.

These provinces have been found to produce this article at one third lefs expence than it can be furnifhed in Europe, and muft therefore be able to command the markets there, in the event of a fair competition. The very nature of the article fuppofes the neceffity of every government maintaining eftablifhments for its manufacture. A monopoly of it in the hands of one nation would lead to confequences highly interefting to every other. Notwithftanding this circumftance, the far greater part of the demand of Europe will be fupplied from this quarter fo foon as trade is permitted to run in its natural channel, by being more fully underftood. There has appeared a calculation tending to prove that faltpetre may be imported from Bengal to Europe at 2[illegible]l. per ton, whereas that manufactured in Spain cofts from 90l. to 100l. fterling.

It is probable that the importance of these provinces has never yet been fully discerned, nor their value felt. Time, and more liberal ideas of commerce, will discover other branches of trade which India may advantageously carry on with Europe. We are at present indebted to Portugal for the annual supply of raw hides, to the amount of nearly a million * ; an equal quantity might be furnished by Bengal on terms perhaps equally advantageous.

We have already mentioned the buffalo as an object of natural history, and an instrument of rural labour; but that animal is still more valuable as affording an article of commerce: The black cattle of these provinces, including the buffalo, have been estimated at 200,000,000; taking the number at one tenth part of this estimate, a supply equal to that of Brazil might easily be obtained. This has been reckoned 120,000 annually, a number probably much inferior to the casualties of this part of India, where the currier seldom thinks it worth his trouble to skin any animal dying a natural death. A cow-hide, after tanning, costs eight anas; that of a buffalo being larger, may bring ten or twelve. At two rupees each, hides tanned in the best manner which is known here, might be shipped for Europe; perhaps they may be furnished at a still cheaper rate.

FROM

* Vide Remarks, &c. p. 149.

FROM Hurdevar to Cape Comorin, the British nation possesses either dominion or influence; and this vast tract of country which contains almost every soil and climate, will probably be found capable of producing every article hitherto deemed peculiar to China or America. It is certainly a wide and untried field for experiment, of which in all human probability the indolent and unambitious natives would never have availed themselves. That they have fallen under the guidance and dominion of a more enterprising people, may perhaps be one of those destinations of Providence of which, as we are incapable of foreseeing the consequences, we must be unfit to appreciate the wisdom. However this may be, the conclusion is fair, until experience contradict it; that as India has been found to contain birds, animals, insects, and plants similar to those of other countries in the same latitudes, it must possess every essential requisite for similar productions to exercise the industry of the manufacturer, or to reward the labour of the poor.

A Gentleman, equally distinguished for his humanity, as he is by an extensive knowledge of the situation of India, states, " that no public provision exists in our provinces to relieve the wants of the poor and helpless. The only employment in which widows and female orphans, incapacitated from field labour by sickness, or by their rank can earn a subsistence, is by spinning: and this is the only employment to which the female part of a family can apply

-ply, to maintain the men, should they be disqualified for labour by infirmity or otherwise. To all it is a resource, which when not absolutely necessary to their subsistence, contributes at least to relieve the distresses of the poor. These distresses are great, and of none greater than of the many decayed families who once enjoyed the comforts of life. These are numerous in India, and whether entitled to the consideration of Government or not, they have certainly a claim on their humanity."

Such considerations have suggested various employments to this benevolent writer, which might contribute to their relief, while they added to the commerce and prosperity of the country. He proposes cotton yarn, which could be imported into England from Bengal cheaper than cotton wool. He alleges that linen and woollen yarn are imported from Ireland to the large amount of 330,000 pounds annually ; and contends that if no injury be sustained by the manufactures of Britain from this circumstance, they would be equally uninjured by the importation of cotton yarns from Bengal. This reasoning he applies to cotton wool, silk in the cocoon, and filature and wound silk.

Different species of wood for the dyer, and the cabinet-maker, are also recommended instead of that employed in dunnage. The gums, and vegetable oils with which England is supplied from foreign countries, are the product of these provinces ; and the

the exportation, he argues, would reward the industry of the native inhabitants. Tincal, borax, sal ammoniac, and various other articles might be procured in this country; but probably not on equal terms: and as often as this happens the operations of the manufacturer, and the speculations of the merchant will be guided, not by the wishes of the benevolent, but by their own views of private advantage.

The man who begins a new branch of manufacture, and carries it on with perseverance, is the most useful member of a community. His money circulates among the laborious poor, and is more beneficially bestowed than if the same sums were bestowed in charity upon the indolent. Such enterprises, however, are in general undertaken from views of private and individual emolument: and to stimulate to such exertions it is necessary first to prove that they are likely to be lucrative. If by any means the number of private adventurers to India be increased, there can remain no doubt of their enterprise or emulation: an excess of these qualities has often been their fault, and the punishment of it their ruin. The Indigo trade affords too many proofs of this fact; nor is there any business in the hands of Europeans that does not illustrate the truth of it. That spirit which induces a man to combat every sentiment of affection, whether for his country or his friends, and prompts him to abandon them with so much personal

perſonal riſk, is a full ſecurity for the enterpriſe of almoſt every trader in India.

THIS character of the Britiſh merchants is conſpicuous in Calcutta; and it affords a ſtrong preſumption, that trading in the various articles above enumerated, holds out no proſpect of advantage; otherwiſe it would have attracted the notice of ſo diſcerning a body of men: nor is it to be urged that politicians, or embarraſſing regulations have prevented this. The ingenuity of merchants has found means of evading or ſurmounting almoſt every regulation that militated againſt their intereſt.

OF HARVESTING, &c. IN UPPER INDIA.

. . . .

Chunar, March 1798.

THIS and the ſubſequent month conſtitute the harveſt ſeaſon in thoſe diſtricts where wheat and barley are the prevailing crops, and where from this elevation the inundations of the Ganges do not convey moiſture or fertility for the production of rice.

OF the various mixture which has grown on the ſame field, flax and muſtard are the firſt ripe. Theſe are both deſtined for oil; and when pulled and trode out, the ſeed is ſecured in baſkets, till a convenient period for bruiſing it arrives. The treading out is performed in the open field, on a ſmooth ſpot, that has been levelled and prepared for the purpoſe, ſo that the ſeed and chaff can be ſwept up as eaſily as from a barn floor.

ON

ON fome fields the barley and flax are reaped together; or are pulled up by the roots if the crop prove too fhort for the fickle. More frequently, however, the flax and muftard according as they ripen, are gleaned from the other grains. In the famé manner the flowers are picked from the yellow dye, and dried for prefervation: thus by collecting the different crops as they ripen, the wheat or barley which remains, is greatly injured by being fucceffively trampled in thefe different operations. The practice of multifarious crops, if cenfurable with you who reap all forts at once, muft prove much more objectionable where fo much pernicious wafte is occafioned by the feet of the reapers.

THE harvefting of the natives, like all their other labours difplays much more buftle than difpatch: you may perceive fome hundreds ftraggling through a field without any method or regularity. Some pick the flower of the dye: others cut flax, fome gather muftard, while feveral are collecting into bunches what is reaped, and carrying them to the thrafhing floor. A Company of reapers with you are fo ftationed at their labour, that you can judge eafily both of the quantity performed by each workman and the manner in which he executes it. Among them emulation ftimulates to exertion and cheerfulnefs here every-one faunters through the field as he pleafes, and no one performs nearly one half of the work that might be difpatched by a more judicious diftribution,

A Hindoo reaper turning out to his work, ſcarcely recals to your mind the image of a European labourer; while his head is wrapt up in a profuſion of dirty cloth, the reſt of his body is almoſt naked; and the cold of the mornings at this ſeaſon makes his limbs ſhake more like a perſon about to fall down in an ague than a reaper going to perform a day's labour. In one hand he carries a very ſmall hook, in the other rope, with which he carries home all that he cuts during the day.

The uſe of cattle in carrying the crop is ſeldom practiſed; nor is to be aſcribed altogether to the badneſs of the roads, for at this ſeaſon the ſoil is every where dry and firm, but to the ſmall quantity cut down, which is frequently not more than the reaper can carry. Thraſhing being often performed in the field, the ſtraw becomes ſtill more eaſily conveyed from the diminution of weight. On the field the wheat, barley, and flax are much higher than they are in England; while the Palma Chriſti, the Indian corn, and the Badjera †, are far more bulky than any produce of Engliſh huſbandry. They riſe from eight to twelve feet in height, and are often ſo thick that they are impervious to the air. The ſugar alſo grows pretty tall; and from its great cloſeneſs muſt ſtagnate the air: ſo that did not experience contradict it, you would conclude that it enriched rather than

† A kind of millet.

than impoverifhed the foil. The leafy and leguminous plants do not uniformly enrich the land upon which they are raifed; fome of them as tobacco, draw fo much nourifhment that ftagnated air cannot fupply the wafte. Tobacco land, as well as fugar fields, muft therefore be invigorated with manure.

MUCH of the wheat and barley here, as w ll as of the rice, is loft by over ripenefs The labour of harvefting fo many crops, all coming forward nearly at the fame time, is too much for the farmer to overtake. Some kinds, like the flowers of the yellow dye, muft be picked for feveral weeks at intervals, from the fucceffion of flowers coming forward gradually. The barley, therefore, which is a common mixture with this crop is not only repeatedly trodden, but often drops before the labourer can afford time for cutting it down.

NEITHER the different fields, nor the feparate poffeffions of Ryuts, are parted by hedges as they are in England; but here fhelter is lefs neceffary, as the extraordinary height to which fome of the crops rife yields fufficient fhelter to all in their vicinity The pafture lands being generally in a barren or wafte ftate, and lying at a diftance, dykes become unneceffary for their defence. Should, however, the country become completely occupied, or hufbandry carried on with greater vigour, fences and inclofures would be found as neceffary as they are in Britain, and an equally valuable acquifition in hufbandry.

Artificial

Artificial graffes could never be preferved without fences; nor has the fubftitution of a herdfman on clay foils ever anfwered the end of protecting them. By trefpaffing for a few hours, the feet of black cattle have been found entirely to ruin a field of fown graffes.

Herding of fheep, cattle, and goats, is common not only in Behar, but over all India; and there is reafon to believe that a more certain criterion cannot be afforded of imperfect hufbandry; for without reft, pafturing cattle never thrive. Here, where the paftures are common to a whole village, each tenant feems to put to it as many cattle as he choofes. The land is overftocked; the cattle ftarved; and inftead of a greater profit, the wretched peafant does not reap the half of the benefit that a third part of his ftock, properly fed, would yield. Examples of this wretched management are two frequently under your obfervation to require any comments from me upon the fubject. Here, however, the fyftem is beyond all meafure more pernicious, from the length to which it is carried. I have met a drove of fome hundred cattle coming in from this wretched pafture, not one of which would have weighed againft your beft fheep. The black cattle and the hogs are barely kept alive; the hogs and fheep on a fhort pafture make a better fubfiftence, but are never fattened, unlefs at the ftall.

DURING the dry ſeaſon, and more particularly the prevailing of the hot winds, every thing like verdure diſappears; ſo that on examining a herd of cattle, and their paſture, you are not ſo much ſurpriſed at their leanneſs, as that they are alive. The graſs cutters, a claſs of ſervants kept by Europeans for procuring food for their horſes, will bring provender from a field where graſs is hardly viſible. They uſe a ſharp inſtrument, like a trowel, with which they cut the roots below the ſurface. Theſe roots, when cleared of earth by waſhing, afford the only green food which it is here poſſible to procure.

OF the artificial graſſes, none have ever been attempted ſo far up the country as the place from which I now write. The hot winds would in all probability not only ſcorch the portion expoſed above ground, but would penetrate ſo far into the earth as would probably prevent them from ſhooting up in the ſucceeding rains. With regard to the raiſing of turnips, cabbages, carrots and greens, experiments ſufficiently deciſive have annually been made in the gardens of Europeans. Here theſe articles are all raiſed during the cold months, but no art can preſerve them againſt the deadly influence of the hot winds: though in each garden a ſupply of water is daily drawn by two bullocks, theſe vegetables are now languiſhing, and before the end of the preſent month they will periſh in ſpite of every effort to preſerve them.

All the different particulars which have hitherto been occasionally noticed, will not enable you to form a just estimate of Hindoo agriculture, unless the practical effects of their numerous prejudices are taken into account. One which I have not yet mentioned, operates very prejudicially; it is the unfair competition established between the Ryuts of different casts. A person of the rank of Brahmin obtains not only his lease on easier terms, but has several exemptions, to which his inferiors are exposed. A Ryut of the other classes is still more favoured than the Chumars, though not on a footing with the Brahmin: a person of the latter cast has an ingenious method of enforcing payment of a debt, or indeed of any claim which could not be practised among a people less enslaved by the priesthood He places himself before the door of the unhappy debtor, and vows never to leave it till he obtains his demand. Should this not produce the effect, he threatens to starve himself to death before his door; and such is their terror for this consequence, which would excommunicate the most considerable family, and for ever ruin it, that no demand is ever refused, even though unjust.

The person before whose door a Brahmin had starved, would be regarded as the most infamous and abandoned of men; and as such could expect no countenance from society. In the exaction of rents from persons of higher cast much more lenity and indulgence is shewn, than to the lower orders. Thus the

the Hindoos ſuffer all the evils reſulting from an unequal ſtate of ſociety, without participating in almoſt any of its avantages. In Europe, the ſpeculative, the opulent, and even the idle, either add to the conveniences, the amuſement, or the elegance of ſociety. Here the indolent Brahmin miniſters to neither: his knowledge does not enable him in one individual of a thouſand, to inſtruct ſociety either as an author or a teacher: above the rank of a labourer his induſtry is not only deſtroyed, but his indolence becomes pernicious as an example; while the ſplenetic habits of the religioniſt prevent him from mixing in ſociety, or contributing to its luſtre or elegance.

The prejudices entertained againſt many kinds of wholeſome food, which are nouriſhed and upheld by the precepts and example of this order, we have already noticed, injuring agriculture in ſome important particulars, and preventing the whole people from purſuing ſeveral of the moſt approved branches of rural economy. The number of holidays which frequently interrupt rural labour, are at ſome ſeaſons particularly inconvenient; while the conſtant practice of every individual going to the river to bathe and carry water, is a ſerious encroachment upon harveſt labour, which a more accommodating ſyſtem would have avoided.

To theſe conſiderations we muſt alſo add the mean and imperfect implements employed in every department of huſbandry; the inferiority of their working cattle,

cattle, and deficiency of roads, and every adequate means of land carriage: these are circumftances which whether regarded as the caufes or confequences of imperfect hufbandry, are certain proofs of its backward and unpromifing ftate. Such, however, are the circumftances and actual condition of a people who are frequently reprefented to Europeans as in a very high degree of improvement in all the arts, and as having carried many to the *ne plus ultra* of perfection.

PARTICULAR BRANCHES OF RURAL ECONOMY IN THE DISTRICT.

. . . .

Benares, 1797.

THE internal commerce of Bengal is carried on, as we have ſeen, chiefly by craft on the different branches of the great river; ſome part of it is alſo conveyed by land carriage, from the different places where produce is manufactured, to the banks of thoſe rivers, or to market In both caſes the carriers are merchants, who do not often hire their carriage, but purchaſe at one place what they ſell at another.

We have yet but little account of the (dandies) boatmen; when employed by the natives they receive little more than their food, which is furniſhed commonly in grain, with a ſmall allowance of money for the purchaſe of ſalt, tobacco, and a little cloathing.

The rate of freight charged by the owners of these vessels is so much per maun of their burden: estimated at three rupees per hundred maun, when carried an hundred miles *. When the boats are employed by the owners on their own account it is believed that they transport goods at a much smaller expence. The average rate of travelling with, and against the current, may be reckoned twenty-five miles; hence a ton is carried for that distance for less than sixpence of our money.

The land carriage is managed with an equal degree of economy. It is most commonly performed by oxen; sometimes by the small horses of the country, and occasionally by buffaloes. The latter animals, though stronger, and more docile than oxen, are less easily maintained. The carrier allows his cattle no grain, seldom even straw; the gleanings occasionally made on the road-sides are the whole support of the oxen, a fare too slender and precarious for the buffalo.

The tear and wear of cattle ‡, and the subsistence of one driver to four oxen, is all the positive expence of land carriage; which at a medium has been estimated at half an ana per day for one maund. The use

* Vide Remarks on the Agriculture and Commerce, &c.

‡ The price of a carrier's best oxen is about eight rupees, and their burden is from four to six maunds.

use of carts were it practicable, would greatly increase the facility of land carriage. But except in the neighbourhood of military stations there are no roads in this part of India. The country affords no substantial materials for their construction; and those magnificent cawseways which facilitated intercourse under the native princes, are hardly discernible.

From such instruments of conveyance you may conclude, that the internal commerce of this country, notwithstanding its natural advantages, is in a languid state. In fact, the exportation of grain from corn countries, and the importation of salt, constitute the principal part of this commerce. The importation of cotton from the western provinces, and the exchange of tobacco, and beetle nut, form almost the whole supply of internal consumption. Piece goods, silk, saltpetre, opium, sugar, and indigo pass almost entirely through the hands of the Company.

The internal duties which form the basis of an estimation of the commerce, have been abolished. From their former amount of eight per cent. on the real value, the whole annual amount of internal commerce, excluding the Company's investment, has been estimated at three millions and a half; of which one passes through the hands of the Company by the monopoly of salt. The internal conveyance of grain is conducted entirely by the natives; this alone has been stated at two millions, exclusive of that supplied to towns by their immediate vicinity.

During a ſhort excurſion in the vicinity of this city I have had an opportunity of examining the ſtate of the wheat and barley crops, which are nearly ripe. They are inferior to the ſame crops in Britain, and particularly in length The barley, or rather big, for it is all of that inferior ſpecies, does not exceed twelve or fourteen inches in height; but where the land is in good order it is a cloſe crop, and yields plump grain. The wheat is bearded, and would pleaſe you worſe than the barley; it never riſes above the height of two feet, and would in England be reckoned a light crop The prepoſterous cuſtom of mixing the yellow dye with the white corn, hurts the eye of a farmer, and occaſions the one crop much injury by reaping the other, independent of the miſchief of crowding the grain.

Sugar is a frequent produce, in this diſtrict, which is reckoned one of the richeſt in India I have had occaſion to admire the ſimple apparatus employed by the natives in expreſſing the ſugar, and boiling it. A ſtone mortar, and wooden piſtern, turned by two ſmall bullocks, the whole not worth twelve rupees, conſtitutes the expence of the operation. The pots uſed for boiling are of the common earthen ware, every where made here. By a judicious mode of placing theſe under ground, and introducing the heat by a draught of air, like that in a furnace, a ſmall quantity of fuel is ſufficient.

Here

HERE as well as in the West Indies, the sugar harvest is a busy but joyous season. The native labourers grow plump and well conditioned on the offals and little perquisites about a sugar work. All the different operations of cutting, grinding, and boiling, are carried on at the same time, which occasions a bustle on the farm rather exhilarating than oppressive. It is such a scene as your stout reapers exhibit, when they see before them the close of a harvest labour, or when bringing the last sheaves into the barn-yard.

AFTER the tragical, and too pathetic descriptions which we read of the late peculations and oppressions of Benares, I was happily disappointed, when I saw the subject before me, unvarnished by rhetorical art, but richly covered with natural luxuriance, or with the produce of rural labour.

THE numerous groves, (Topes in the language of the country), give the whole province the appearance of a forest; and afford an agreeable shelter to cattle, and a retreat to the traveller from the noon day heat. It is deemed a most meritorious act, in the eye of religion, as well as a civil duty, to plant a tope of mangoes. The fruit is rich, and nutritive; and affords one happy, but rare example of the coincidence of Hindoo prejudice with the dictates of morality, and the emolument of the peasantry.

THE

The trees when planted, belong often to the planter, and not to the proprietor of the foil; the former pays the latter a certain proportion of the fruit as a ground rent I had here an opportunity of feeing the eftate of a Zemindar, who, though owner of the land, was not entitled to the fruit of the Topes; nor was the tenant an European to whom he had let a great part of his property. The complicated proprietory right was in this inftance fhared by four parties; government, the zemindar, the European tenant, and the planter of the mango trees: If to thefe you add the vague and unfubftantial interefts of the Subah, and Emperor of Hindoftan you will, have fome idea of that chain, whofe links conftitute the different bonds by which property is held in India.

On the eftate of this Zemindar, too, I vifited a fmall, and almoft inacceffible mount, which had lately been conferred on a devotee The whole was planted with fruit trees and vegetables, among which this holy perfon lived, without the cover of an houfe, and performed the rigid farces of afcetic devotion before the multitude. While this devotee pretended to renounce all the concerns of this material world, and its grofs allurements, it was plainly obfervable, that he had found opportunity of fnatching a glance at his neighbour's farm feveral fhreds of which he had actually appropriated to himfelf, by gradually extending, during night, the limits of a paltry hedge. Zeal operates in every direction; yet active as it is, it cannot always counteract the movements of carnal

appetite,

appetite, or check the growth of our ſelfiſh affections. Nor have the good Fakeers, who have undertaken to lead men to heaven, by the force of holy example, been always able to defend themſelves from the inroads of theſe paſſions. Happy were it for mankind, did this conſecrated mount at Benares, alone diſplay an example of the imperfection of piety, or were it the only monument of the inſtability of human virtue; but alas! it is whiſpered even here, that the Fakeers, the moſt ſacred portion of a religious people, frequently apply for medical aſſiſtance in a diſeaſe which is ſeldom contracted but in the triumphs of incontinence over the frailty of nature; and that amidſt all the ſeeming mortification and auſterity of their lives, and the ſacred vows by which they are bound, theſe religioniſts too frequently diſplay the paſſions of the man riſing upon the ruins of the ſaint.

OF

OF THE SALT MANUFACTURE, AND COLLECTION OF REVENUE.

. . . .

Chunar, Feb. 1797.

THE labours of the Hindoo are certainly not more oppreſſive in general, than thoſe of the European. The toil of the Molungees, (ſalt makers), however, is an exception; for it is, both in its nature and duration, the moſt pernicious and ſlaviſh employment in this, or perhaps in any country.

" A large proportion of the ſalt made in Bengal is manufactured in deſarts, overflowed every-tide by the ſea; and the climate of theſe deſarts is inimical to every conſtitution * " All the complaints occaſioned by heat and moiſture, appear there in their moſt

* Vide remarks on the agriculture and commerce of Bengal.

most malignant form: Dyfenteries, at one feafon, are peculiarly fatal. The unhappy victims of this diforder are avoided as infectious by their companions, and fuffered to pine without receiving either that aid or confolation, which compaffion ufually pays to the wretched. The progrefs of the diforder, in fuch circumftances, leads to certain death, if that event be not anticipated by the tigers and alligators, by which thefe dreary waftes are infefted.

The tigers, accuftomed to human blood, boldly attack the falters; while the alligators are always ready to affail each unfortunate individual who may ftray from his companions.

These are not the only evils to which the Molungees are expofed: their unhealthy and dangerous employment carries them to a diftance from their families, where their provifion, and even water is fupplied by a long carriage. From choice, therefore, a native will not engage as a falter; and this circumftance occafions a fpecies of flavery to be eftablifhed in this manufacture in many countries, which with you remained till very lately, but which here has yet received neither remedy nor alleviation. Whoever has once laboured at the falt works, is bound himfelf and his pofterity forever to continue in that occupation.

From the great mortality incident to their employment, the falters do not keep up their members, but

the annual waſte, like that of the ſlaves in the Weſt Indies, is continually ſupplied by unjuſtifiable arti-fices, in procuring freſh recruits.

LABOURERS are either decoyed to theſe works by falſe repreſentations, or they are compelled, on alledged proof of their profeſſion, to engage in them. This proof, it is ſaid, frequently conſiſts of perjured evidence, which is here never difficult to attain; or is ſupported by the *ordeal*, that mock evidence which characteriſes a barbarous ſyſtem of juriſprudence.

THE ſalt revenue is ſo conſiderable, that the trade cannot be laid aſide, nor can an article of living ſo neceſſary be abandoned. Several improvements have been ſuggeſted to render the proceſs leſs prejudicial to the workmen. It has been propoſed to manufacture ſalt in leſs unhealthy ſituations, or to import it from the Coromandel coaſt. A duty has been propoſed, inſtead of the monopoly in the hands of the Company.

THE annual ſales have amounted to one million ſterling; and the neat revenue after deducting charges, has been ſo conſiderable, that no adequate compenſation for ſo important a ſacrifice can eaſily be found. Hence the unfortunate Molungees continue in the moſt wretched of all ſlavery.

THE ſalt agents employed by Government, cannot juſtly be charged with the ſufferings of theſe people, ariſing

arifing from the local fituation, or the malignity of the climate. They are not, perhaps, chargeable with the methods practifed in procuring the devoted indi-viduals to engage in thefe works. The neceffity of having them fupplied, has however been fuppofed to render them negligent in fcrutinizing the means made ufe of for that purpofe: What we would conceal from ourfelves, or what we wifh not to know, we muft always be little inquifitive to learn.

The expected free revenue arifing from the fale of falt, is faid to be no more than forty-two lacks: fome have argued that this revenue might be made good by impofing a duty on the article of one rupee each maun; and contend, that the increafed con-fumption, on lowering its price, would render this fum perfectly efficient.

A different arrangement in the falt trade is, per-haps defirable in another view: The high price of the article has compelled the poor to a more fparing ufe of it, than appetite dictates, or health requires. The quantity they employ is certainly fmall, and were falt a luxury, and not a neceffary of life, you would defire to fee them more amply fupplied.

The charges and advances upon the falt manufac-ture, are ftated at thirty-nine thoufand pounds, or nearly forty per cent. on the whole amount of the fales. The number of workmen employed, the fmall quantity of labour performed under the immediate

Infpection

inſpection of native ſuperintendants, occaſions a very heavy expenditure. The expence of the collection of every deſcription of revenue here, is certainly large, and the number of ſubordinate officers is beyond all proportion greater than with you. It is probable that ſome laxity in the management takes place, as very large fortunes have been frequently amaſſed by individuals in the revenue department, while no claſs of men are more laviſh in their expenditure.

The groſs rent paid the landholder in Bengal, is by a competent judge * ſtated at above five crore, and ninety four lacks; while the charges of collection, at forty per cent. amount to two crore, thirty-ſeven lacks: Hence the landholder can only realiſe three crore, fifty-ſeven lacks, nearly.

Every Mawza, or village, requires a Putwary, (officer of accounts). The whole number of Mawzas in theſe provinces, amounts to one hundred and eight thouſand; of which ſome at preſent are waſte, and contain ſeveral villages. The regulation is not ſo ſtrictly complied with as to appoint an officer of accounts to every village; one to three is probably the real proportion. One officer for meſſages, and ſuch ſervice, called a *gorait*, is alſo neceſſary to every Mawza: two rupees each month, is the ſmalleſt ſubſiſtence

* Author of Remarks, &c.

ſubſiſtence that can be aſſigned to the gomaſt; and [illegible] rupees is a very moderate ſalary for each officer of accounts. At theſe rates, however, ſixty thouſand putwarys, and thrice that number of meſſengers, require a ſalary of ninety-three lacks and ſixty thouſand rupees.

BETWEEN the firſt collection at the villages, at the principal diviſions of diſtricts, other charges are incurred; without bringing theſe into account, new ſums are required for pergunnah charges; or thoſe expences incurred at larger diſtricts. According to the inſtitutions of Acber, the number of pergunnahs was upwards of nine hundred. In the preſent arrangement this diviſion is not exactly followed; ſome pergunnahs being divided, and others conſolidated; but the actual number is believed to be nearly the ſame.

FOR each of theſe pergunnahs a number of accountants, regiſters, ſecretaries, guards, and peons are required, and their preſent allowances, in ſalaries, fees, and perquiſites, has on a moderate computation, been eſtimated at five hundred rupees per month. Nine hundred diſtricts, at this monthly charge, require an annual eſtabliſhed expenditure of fifty-four thouſand rupees. If to theſe ſums you add other incidental charges incurred between the landholder and tenant, two crore thirty-ſeven lacks for the expences of collection, will be fully accounted for.

AFTER

After this heavy deduction, there remains, as we have ſtated, nearly three crores fifty-ſeven lacks to the landholder; but agreeably to the permanent ſettlement only one tenth part of this ſum is left for his own income, the other nine conſtitute his aſſeſſment to Government. In this country, therefore, the Government, according to your ideas, will appear the proprietor rather than the Zemindar. The intereſt of the former being equally permanent, and far more ſubſtantial than that of the latter: When the zemindary is extenſive, the landholder does not appropriate even the tenth part of the groſs rents. In ſuch a ſituation, he appears like a ſuperintendant of a numerous train of ſubordinate collectors, for every one of whom he is reſponſible.

Many of the properties in Bengal are ſmall; on theſe a calculation has been made to admit of a larger ſhare to the proprietor; becauſe in ſuch inſtances a tenth of the groſs payments would have proved totally inadequate for his ſupport. "The particular ſanction of Government for ſuch calculations was ſeldom neceſſary; becauſe moſt of the ſmall properties were held upon tenures which furniſhed their own ſtandard for the ſettlement †."

Such

† Vide Remarks, &c.

SUCH is the ſtupendous and complex ſyſtem adopted for collecting the revenue of India, without taking into account the number of civil ſervants appointed to this duty by the Company, who form a ſuperior claſs of revenue officers, receiving individually far greater emoluments than any of the others already noticed.

THIS ſyſtem to you muſt appear awkward and expenſive, from the exceſſive number of agents employed; but here it is, perhaps, in a great meaſure unavoidable, from the extent of the country, the number of villages, and the ſmall ſums contributed by each. A ſingle manufactory with you contributes more to Government, than perhaps a whole pergunnah in India. One large ſea port may have its duties collected by a number of officers comparatively ſmall, while in levying an equal ſum here, you muſt maintain an eſtabliſhment ſufficient for a whole province.

THE want of activity among the native writers and accountants, tends alſo to increaſe their number. In ſome private families you will ſee three or four writers employed merely on family accounts, which in Europe the maſter of it would eaſily adjuſt with equal accuracy, by devoting only a few hours in the week.

BUT

But as often as natives are employed, you have apparent application to buſineſs, with little progreſs; buſtle with little diſpatch; and numerous agents without much execution.

OF THE DISTRIBUTION OF PROPERTY IN LAND.

Chinsurah, March 1800.

If large eſtates in the poſſeſſion of individuals are pernicious to the general intereſt of agriculture, too ſmall a diſtribution of land is ſtill more injurious; and Bengal has had the ſingular infelicity of ſuffering at once both theſe evils. One ſubſtantial improvement, therefore, is the diſmemberment of large properties; while in thoſe inſtances regulations which encourage the ſubdiviſion of landed eſtates among heirs, according to the common laws of inheritance, are ſalutary in their operation.

There are over Bengal a vaſt number of ſubordinate proprietors, who are ſuppoſed to have had their origin in the hereditary nature of the different officers in the collection of revenue under the Ze-

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mindar. In ſome parts theſe ſmall properties have ariſen from an extenſion of the right of occupancy, from vague permanency to a hereditary and transferable intereſt. They are called *Talooks*, and all pay a fixed quit rent, for a portion of land heritable in the family, and transferable by the common rules of law; though in ſome inſtances the right of alienation was not recognized.

These eſtates, originally ſmall, ſoon were ſubdivided by the operation of the Hindoo and Mahommedan law relating to inheritance. The former divides property into equal ſhares among heirs of the ſame degree, but excludes females, who ſucceed only in failure of male heirs: The Mahommedan code aſſigns to ſeveral relations their ſpecific portions as allotted by the Crown; and divides the remainder of the inheritance in equal ſhares to all males of the ſame degree, and half their portion to females of the ſame degree of conſanguinity §. Thus a vaſt number of properties were ſplit into portions ſo ſmall, that the Talookdars in ſome inſtances ſtand aſſeſſed in the revenue books only at a few pence. Yet theſe petty proprietors continue attached to their poſſeſſions, limiting their induſtry to a paltry ſpot, incapable of yielding them a ſubſiſtence, much leſs of ſupporting a genteel indolence, which many attempt, in imitation of their anceſtors, on a divided patrimony.

§ Vide remarks on the agriculture, &c.

mony. The idle indigence of theſe ſmall proprietors, exhibits agriculture in its worſt ſtate. Their poverty prevents every improvement; the property though cultivated to the utmoſt, is often inadequate to the ſupport of a family.

FROM the unambitious, and indolent diſpoſition of the natives, this ſtate of property becomes peculiarly pernicious: Satisfied with the produce of his field, if it ſupport life at any rate, he will neither apply to any other occupation, nor cultivate more land. If the property is let to a tenant, he is ſtrained to the utmoſt to ſupply the wants of a neceſſitous landlord; and his own proverty acts as a bar to all ſpirited cultivation. The tenants of theſe ſmall properties are comparatively wretched, and their farms in bad condition. Mr. Young gives a ſimilar account of the ſtate of property in ſome parts of France.

THIS ſtate of landed property exhibits the great body of people in ſo depreſſed circumſtances, that they can procure nothing but the mere neceſſaries of life. A wealthy peaſantry, and well paid labourers, encourage agriculture, manufactures, and the arts, by the large demand for their conſumption; while a whole country poſſeſſed by indigent proprietors, or ſtill more wretched labourers, contributes nothing to general proſperity, and is an unprofitable population. The income left to all the proprietors after paying their aſſeſſments (nine tenths of the whole), has been ſtated at rupees 26,46,409; this ſum diſtributed

buted among more than 60,000 proprietors, leaves an income to each of thirty rupees, a ſum inſufficient to maintain the family of the pooreſt labourer.

THESE evils, by proceeding to extremity, correct themſelves: the zemindar of a very large diſtrict paying 9-10ths of his whole income to the revenue, on any calamity muſt fall in arrear to government, and part of the overgrown zemindary is ſold to diſcharge his debt; this portion falls probably into the poſſeſſion of ſome ſmaller proprietor: on the other hand, if the property of a petty Talookdar is ſold to defray his arrears of revenue, the probability is, that the poſſeſſion will fall into the hands of a more conſiderable landholder. Hence in the lapſe of time a nearer approach to equality of poſſeſſion will be eſtabliſhed: a perfect equality is unattainable, and probably would be diſadvantageous.

IN Aſia the great body of the people are in a ſtate of extreme poverty and depreſſion. This is the firſt obſervation which forces itſelf on every European when he beholds their condition. The intercourſe of the Britiſh has had conſiderable effect in bettering their circumſtances. After all the avidity and irregularities which have been alleged againſt our Government, its ſubjects are the moſt comfortable and eaſy in their circumſtances of any in India. The farther operation of that government will produce in time effects ſtill more decidedly favourable to the people.

MUCH

Much room ſtill is left for adding to their comfort. In the greater articles of lodging, food, and cloathing, their ſituation is far inferior to that of any nation in Europe. Their buildings are light and paltry, which no allowance for their manners will palliate. An Hindoo in eaſy circumſtances accommodates himſelf, it is true, only with a hut; but this hut is clean, neat, and warm: the great body of people creep into wretched hovels, incapable of ſhelter or protection, and of materials ſo wretched as to be unfit for fuel, and it muſt do ſo, not from manners, but from poverty.

The ſame thing is obſervable in dreſs: the climate does not require the thick and ſubſtantial cloathing of Europeans; but among individuals, whoſe circumſtances admit of choice, there is ſome variety, much cleanlineſs, and elegance of dreſs. When this is contraſted with the miſerable rags or nakedneſs of ninety-nine in one hundred of the people, it is not to be aſcribed to the ſimplicity of Hindoo manners, but to the extremity of their indigence. In their food, fleſh is excluded from the diet of the greater number, and fermented liquor from all; yet that circumſtance will not account for the far greater part eating millet, pulſe, and bad grain, inſtead of white corn: nor will any circumſtance of manners, or religious prejudice, account for the ſmall portion of ſalt, ſpice, and ghee uſed in the general run of meals, while thoſe of the opulent are ſo fully ſupplied with theſe ingredients. It is

therefore

therefore to be concluded that the Aſiatics are poor.; and that they are themſelves conſcious of that poverty; and would willingly improve their condition, though incapable of that perſevering induſtry, or that energy of exertion which characteriſes Europeans.

It has been urged, that from the low price of proviſions, the wages of a native labourer is equally competent to his ſubſiſtence, as thoſe of a Briton. This is ſcarcely admiſſible. In England the price of a pound of meat is 5d. and of bread 2d. which makes about one third of a labourer's hire. In Bengal the price of a labourer's wages is one ana per day; that of coarſe rice is the ſame; but meat and bread is a much more adequate meal than coarſe rice, even to a Hindoo.

The average earning of a family in India has been computed at [illegible] rupees per month; this, which is probably a juſt eſtimate, can barely ſupport a family in the loweſt form of exiſtence †. Whether the computation be accurate or not, the reſult of it is a correct repreſentation of the condition of the great body of the people in this country. The intercourſe of Europeans with a people ſo circumſtanced has tended to animate their induſtry, to direct it to new objects, and to procure labour an additional reward by increaſing the demand for it.

The

† Vide Remarks, &c. p. 65.

THE first commencement of our influence was neceſſarily attended with turbulence and confuſion; the exiſtence of a regular Britiſh government is but a recent circumſtance; yet in the courſe of a few years compleat ſecurity has been afforded to all its dependants; many new manufactures have been eſtabliſhed; many more have been extended, to anſwer the demands of a larger exportation. We have therefore conferred upon our Aſiatic ſubjects an increaſe of ſecurity, of induſtry, and of produce, and of conſequence greater means of enjoyment, as well as more ample opportunity for acquiring the knowledge of truth, and the practice of virtue.

THE

THE PROFITS OF HUSBANDRY IN BENGAL.

Chinsurah, 1800.

A PRINTED treatise, entitled Remarks on the Agriculture and Commerce of Bengal *, by a civil servant of the Company, may be regarded as the only work on this subject: when treating of the profits of husbandry, the author of these remarks distinguishes the cultivators into three classes; first, those applying the labour they give, to husbandry to land solely on their account; second, those tenants who monopolize land, to relet it to the actual cultivator at an advanced rent; and thirdly, those peasants who superintend the culture of their lands performed by hired servants or workmen.

PERHAPS

* This treatise has not yet been published.

Perhaps the greater part of the lands tenanted, are poſſeſſed by peaſants who thus hire labour; many being reſtrained by prejudice from perſonal labour; many alſo are contented with ſuperintending the management of labour called in aid of their own. As, however, theſe ſervants and labourers alſo uſe land on their own account, the peaſants in reſpect to number, may be truly deſcribed as labouring unaſſiſted on the lands they uſe.

"A cultivator employing ſervants, entertains one for every plough, paying monthly wages, which on an average do not exceed one rupee per menſem. In a cheap diſtrict we have found the monthly wages as low as eight anas. But the taſk, on a medium of a biggah a day, is completed by noon. The cattle are then left to the herdſman's care, and the ploughman follows other occupations the reſt of the day, moſtly the cultivation of ſome lands on his own account; and this he generally tenants at half produce from his employer. The quantity of land commonly uſed by the ploughman, is aſcertained by the uſage of ſome diſtricts, which authoriſes a ſpecific quantity to be underlet to the ploughman, equal to three biggahs."

This portion of land, cultivated ſolely by the perſonal labour of the ploughman, cannot pay him more than ſeven rupees per annum, which added to his monthly allowance, gives a ſubſiſtence of nineteen rupees, or about two pounds ſeven ſhillings of our

money. This is the wages of a very large portion of agricultural labourers.

"If the herd be fufficient to employ one perfon, a fervant is entertained; and he receives in money, food, and clothing, to the value of one rupee and a half per menfem. The fame herdfman, however, generally tends the cattle of feveral peafants, receiving per head, a monthly allowance equal to half an ana. One herdfman can tend fifty oxen or cows, his fubfiftence will thus amount to nearly the fame fum as the allowance of the laft clafs, or ploughmen.

When feveral ploughs are kept, the peafant generally has a pair of oxen particularly affigned to the implement which fupplies the place of a harrow: for this is fuppofed to require ftronger cattle than are fufficient for the plough. A plough complete cofts lefs than a rupee: the price of a harrow is ftill more inconfiderable. The cattle employed in either, are of the fmalleft kind, and will not average more than four or five rupees a head. The medium rule of hire for a day's labour of the plough or harrow is two anas, or nearly fourpence fterling.

"For a hand-weeding, the labourers are very generally paid in grain inftead of money: the ufual daily allowance is from two to three feer. The labourers bring their own hoes, which are fmall *fpuds*, and their coft is very trifling. Twenty labourers

may weed a biggah in a day; which is at the rate of ſixty to each acre.

"For tranſplanting, the allowance and labour performed are nearly the ſame. No tool is required for tranſplanting rice, the whole operation being performed by the hand; but for other cultures where a tool is requiſite in planting, an implement reſembling a hoe, on a long handle; or one like a chiſſel, alſo on a long handle, is employed.

"For hand-hoeing, the large hoe which in Bengal ſerves the purpoſe of a ſpade, is employed. It is wide and curved, and ſet on the handle at an acute angle, which compels the labourer to ſtoop low to his work. The ſame tool ſerves to break up old lays, previous to dreſſing them with the plough, and for other purpoſes for which a ſpade is employed in Europe. The pay for digging, though moſt ſevere, is on the ſame allowance with that of other country labour, namely, between two and three ſeer per day.

"Reaping is generally performed as piece work, the reapers being hired at a ſheaf in ſixteen; or, if they alſo carry in the harveſt, at a ſheaf in eight: but the whole expence of gathering the harveſt may be paid with one meaſure of grain in ſix, which provides for the labour of reaping, carrying, winnowing, meaſuring, and ſtoring the crop. The thraſhing

is

is not included, for corn is not thrafhed, but trodden out by the cattle of the farm."

Husking of rice, though fometimes the bufinefs of the corn merchant, is frequently performed by the peafants on the farm at leifure times. It is executed with a wooden peftle and mortar, or under a beater worked by a pedal of a fimple conftruction. It is hufked dry for home confumption; but fcalded for exportation, as the method beft calculated for prefervation. The expence of fuel is nearly equal to the economy of labour, the allowance for hufking rice is the fame in both proceffes; and is generally contracted for at five-eighths of clean rice to be returned for the original quantity given out: the furplus, with the chaff, pays for the labour.

Such are the wages of the various kinds of labour, on a grain farm; they are nearly uniform, and certainly very moderate. It appears, however, that a peafant cultivating on half produce, is ftill worfe paid for his labour than the workman hired by the day. Some fmall deductions are made from the crop before partition fuch as for meafurement, religious appropriations, &c.; others for fome of the cultivator's fmall expences: as thefe nearly balance each other, he may be regarded as receiving exactly one half of the produce to reward his labour.

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"THE produce of a biggah of rice, being a tolerable fair crop, may be reckoned at ten maunds:

				m.	s.	ch.
				10	0	0
Deduct the proprietor's ſhare with ſeed advanced by him,	5	26	10			
Labour of reaping and harveſting,	1	26	10			
Twenty days weeding at 2½ ſeer,	1	10	0			
Huſking, with waſtage,	0	21	4			
				9	4	4
				0	35	16

THIRTY-FIVE ſeer ſixteen chittacks of rice, is worth at an average, not more than eleven anas, which will not defray the labour of ploughing and harrowing, even at the ſmall allowance of two anas per diem. Here no allowance is afforded for the tear and wear of implements, nor for the intereſt of money borrowed for ſtock. It follows therefore that the peaſant cultivating for half produce, is not ſo well rewarded for his labour as workmen hired by the day or month. In rich diſtricts, where the produce is greater, while the ſeed and labour are the ſame, he may be paid; but of theſe diſtricts there are much fewer than of thoſe that yield a produce leſs than that above ſtated; and in all ſuch cultivation for half produce is impracticable, becauſe it will not afford the ſimpleſt neceſſaries.

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"In the far greater part of the lands, cultivation for half produce being impoſſible, the rent together with all payments to the landholder and his officers, is only one fourth of the groſs produce. Calculating two crops in the year, one of rice, the other of millet and pulſe; their value oppoſed to the rent and expences of culture, ſeems to yield ſtill a ſmaller ſubſiſtence to the Ryut than either the day-labourer or cultivator for half produce. The plough, with the neceſſary complement of three yoke of cattle, and wages of a ploughman, coſts annually twenty-two rupees and a half; this divided equally among fifteen biggahs of land, which it is capable of cultivating, gives an annual charge for ploughing each biggah, of one rupee and a half.

"The annual profit and charges of a biggah of this land, eſtimating the two crops at the uſual average, will be as follows; viz.

	Rup.	
Seven maunds of rice at	3	4½
Three one half maunds of pulſe,	2	3
	5	7½

	Rup.	
Proportion of the plough - -	1	8
One fourth of produce as rent, -	1	6
Seed, reaping, and harveſting, -	1	6
Two weedings of forty days labour, -	1	4
	5	8

"Here

"Here there appears a loſs againſt the cultivator of one ana and a half for each biggah in his poſſeſſion; the labour, however, for which we have calculated him to pay, is furniſhed chiefly by his own family, who alſo apply their leiſure to other occupations, and thus earn for themſelves and their maſter that ſcanty ſubſiſtence which they enjoy. The lands underlet to his ploughmen alſo contribute a profit to balance in part this loſs.

"In fact, ſays the author of the remarks, it is not upon the cultivation that the peaſant depends for profit, or even for comfortable maintenance. In grazing diſtricts it is the dairy; in others, it is the culture of ſome more valuable produce which aids the corn huſbandry. In grazing diſtricts, the occupying of arable land is neceſſary to entitle the Ryut to paſture in the foreſts and downs a proportionate herd of cattle. And the culture of corn, though not equally profitable, ſerves to alleviate the riſk of other branches, which ſeem precarious in proportion to the greatneſs of profit. On the failure of his mulberry, or ſugar cane, the peaſant, had he no corn, muſt ſuffer the extremity of want; but raiſing in corn and grain, a ſufficiency for mere ſubſiſtence, he can wait the ſupply of his other wants, from the ſucceſs of other crops; or make a reſerve from the ſucceſsful year to meet the difficulties of another leſs fortunate.

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"The profits of live ſtock are leſs precarious; they conſiſt of the increaſe of kine, and the milk of buffaloes. Kine are uſually fed near home, on reſerved paſtures, or on the waſte lands of the villages. Buffaloes, needing richer paſture, and thriving on rank vegetation, do not find ſufficient paſture in populous diſtricts. The herds of this cattle are moſt numerous in the northern and weſtern diſtricts, where in the rainy ſeaſon they find paſturage on the downs, and in dry weather on the foreſt lands, which are moſtly inundated during the rains. A proportion of the buffaloes travel, in the dry ſeaſon, into the foreſts of the countries which border on Bengal.

"Black cattle are grazed at a very ſmall expence. It does not exceed eight anas a head for buffaloes, and four anas annually for cows; and in the grazing diſtricts of Bengal, the whole annual expence incident to live ſtock does not riſe ſo high.

"The profits of the dairy ariſe from the ſale of milk in various forms, and of clarified butter. As this is a produce which bears tranſport to a different market, we calculate the profit as if the whole milk underwent this preparation.

"The buffalo can daily ſupply the dairy with two or three ſeer of milk. Upon an eſtimate of milch cows, in the proportion of two thirds of the whole herd, throughout the year, (in which allowance is made

made for the ſuckling of calves), the produce is nearly fifteen maund of milk, for each cow of the herd.

"THE dairy man will contract without wages, to deliver two ſeer and a half of clarified butter for a maund of milk. At this rate the proprietor ſhould receive thirty-ſeven ſeer and an half of butter for fifteen maund of milk, and may diſpoſe of it for ſeven rupees and an half, from which a deduction muſt be made for tranſport from the dairy to the market; for theſe cattle being uſually grazed in remote countries, the temporary hut which ſerves for a dairy is far from the market. This, however, with the expences eſtimated at ſeven anas per head, will hardly reduce the annual profit much below ſeven rupees for each buffalo cow, or thirty per cent. on the capital, valuing the buffalo on an average at twenty rupees, and ſuppoſing that the increaſe of ſtock fully compenſates the loſs by mortality and accidents. We make no account of the few male calves reared for ſacrifices, nor of thoſe reared for labour; buffaloes in Bengal Proper, being rarely employed for burden, are for the labours of huſbandry. The profits of the common cow, by the increaſe of ſtock, are nearly in the ſame proportion to the capital which purchaſed them: they certainly amount to thirty per cent.

"THE profits of live ſtock would be ſtill greater, did the conſumption of animal food take off barren cows and oxen which had paſſed their prime. This indeed can never happen where the Hindoos conſtitute the great maſs of population; but moſt tribes of Hindoos have no objection to the uſe of other animal food. At their entertainments animal food is generally introduced: But meat, (mutton and goats fleſh), being more than double the price of vegetable food, it could not be afforded as a common diet upon the uſual earnings of labour. Whether this circumſtance has much influence, or whether abſtinence from animal food be not rather aſcribable to moral cauſes, may be queſtioned. Probably both have influence, though the latter has the greateſt. From whatever cauſe it be, the conſumption of animal food is not ſo conſiderable as to render the ſtock of ſheep a general object of attention.

THEIR wool ſupplies the internal conſumption of blankets, but is too coarſe, and produces too ſmall a price to afford any conſiderable profit on this ſtock. The valuable articles of ſugar, tobacco, ſilk, opium, cotton, and indigo are the principal dependence of the cultivator for the ſupply of conveniences, and for the acceſſion of wealth. They derive a farther importance as the objects of external commerce, and they have therefore been treated of ſeparately, as minutely as information could be procured.

PRESENT STATE OF THE LOWER DOOAB.

. . . .

Kinouge, Dec. 1798.

In paffing from Allahabad by Caunpore to this place, a diftance of near two hundred miles, I have had opportunity of remarking the prefent ftate of the lower Dooab, and of the adjacent province of Oude. The buildings moft worthy of notice are the remains of the ancient towns of Cuarrah and Mannikpore. About two centuries ago thefe places were the refidence of the government of thofe provinces which ftill bear their name. When Acber changed the refidence of the Soubahdar from Currah to Allahabad, the whole officers of his houfehold, whofe eftablifhment and equipage had conferred an air of magnificence upon the former town, neceffarily changed their abode.

This powerful caufe foon proved the ruin of Currah; but independent of its operation, the ravages

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of time, in this country, muſt ſpeedily have produced its decline. The incroachments of the Ganges, and even of ſmall rivers, ſoon effect the deſtruction of the ſtrongeſt buildings; ſince the immenſe quantity of rain, which in this country falls in the ſpace of a few hours, gives them a degree of force and rapidity which defies all reſiſtance. The rapid growth of trees proves alſo a very powerful ſource of decay to Indian buildings. The ſeeds of the peeple tree, (Ficus *indica)*, as often as they fall upon an old edifice ſpring up into trees with great rapidity; the roots you may obſerve ſpreading along the front of a wall in ſearch of nouriſhment, for twenty feet; wherever theſe find an interſtice they penetrate, while their enlargement gradually looſens and ſhatters the moſt ſufficient buildings. Thus a town in India ſuffers as much in the courſe of fifty years, as in Europe it would do in two centuries. Hence the ruins of Kinouge and Gour, are but barely perceptible, while cities of equal antiquity are in your quarter of the world ſtill perfectly entire. The decay of Currah and Mannikpore, it is ſaid, have been greatly haſtened by the late Nawab of Oude Azoph Dowlah, who ordered ſeveral of the moſt elegant buildings to be deſtroyed for the freeſtone of which they were built, that he might be ſupplied with materials for his new buildings at Lucknow.

The people who inhabit theſe venerable ruins, are lodged in wretched huts ſuited to their depreſſed circumſtances, and ſadly expreſſive of the calamitous

events

events they experienced during the diſſolution of the Mogul Empire. Their melancholy ſituation excited a more than common intereſt, becauſe it is unavoidably contraſted in the mind with their former grandeur and magnificence. Our Moonſhee, who is a great adept in the traditional hiſtory of India, aſſures us, that the inhabitants of both cities are in general deſcended from ancient and noble families, who have been celebrated for producing ſeveral literary characters of conſiderable note. The inhabitants of Mannikpore lay claim to ſanctity as well as learning; they are ſaid to be deſcendants of the Seyds of Curdeſi, a city of Perſia. Of this ſanctity and learning you however will form no elevated conception, when you are told that the preſent Rajah of the diſtrict is the repreſentative of an ancient family who received the government of it from a Fakeer, who had himſelf obtained his inveſtiture from the hands of the Deity: here then is a prince who poſſeſſes his rank, ſtill more literally than was ſuppoſed of European monarchs, *jure divino*.

The whole face of the country in the lower Dooab, as well as the appearance of the ruined towns, wears a melancholy gloom. Remains of its former population and fertility are continually meeting the eye of the traveller, which he contraſts with the extenſive waſtes or jungles that now occupy ſo great a part of the ſurface. Large tanks, topes, and ſerais, are ſeen at ſmall diſtances upon the roads. In the formation of theſe the religious maxims of the na-

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tives are ſtrictly connected with utility. To dig a tank, to plant a tope, or to build a ſerai, every Hindoo exerts himſelf as far as his circumſtances will permit, in the full conviction that he can in no other way ſo certainly promote the good of his fellow creatures, or ſo effectually work out his own ſalvation. Without tanks, the cattle during the dry ſeaſon would periſh; and without wells the traveller could not ſubſiſt, nor agriculture be carried on. The number of both that is neceſſary implies ſo great labour and expence, that government has frequently lent its aſſiſtance to the inhabitants: and the hiſtorian of his own time, Golam Hoſſein Khan, ſeriouſly urges it as an objection againſt the Britiſh, that neither individuals nor government have intereſted themſelves in theſe works of neceſſity and mercy. The former, he complains, are prevented from colonizing, and therefore never can regard India as their home. The only principle that can actuate them, is the moſt expeditious method of accumulating a fortune, with which they may retire from the country; the intereſts of which are conſidered by them as remote as its ſituation. From the very nature of the caſe, there muſt be ſome foundation for the complaint of this author; and our ſucceſſors in India will have cauſe to regret that ſtill fewer of theſe neceſſary erections remain than there is at preſent. Since therefore individuals cannot feel an affectionate intereſt for the welfare of a country which they are forbid to regard as their own; it is to be hoped that government will do away the grounds of

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this complaint. However fluctuating the ſituation of individuals may be in India, the intereſt of government is permanent in the country.

THE millet is now ripe, and affords an excellent provender for our camels, elephants, and bullocks. I had frequently regretted that ſo much of the ground was occupied by a ſmall eared pitiful grain, but the vaſt quantity of ſtraw about ten feet long, and an inch in circumference, makes a fair compenſation for the meanneſs of the ear. The number of cattle neceſſary for the camp equipage of an Indian army is immenſe, and without a ſupply of this provender which ripens exactly at the commencement of the cold ſeaſon, it would be impoſſible for any conſiderable body of troops to keep the field. Our army, when joined by the different detachments, will conſiſt of about eighteen thouſand infantry and cavalry, and probably of a ſtill greater number of the Nawab's troops. Theſe will be attended by more than twenty thouſand cattle of different kinds, and camp followers to five times that amount.

IN our preſent ſtate we cover a line of march the length of from ſix to eight miles. The marching of a native army through a country either in a hoſtile or amicable manner, uniformly commits much devaſtation: European diſcipline, and the attention of our commanding officer, has converted this ſcourge of India to an advantage; for wherever our troops penetrate, a market is thus provided at the peaſants

door.

door for almoſt every article he can ſpare; while his perſon and property are more ſecure than on ordinary occaſions: for it is ſeldom the camp followers are allowed to incroach even upon a corner of his corn field.

INSTEAD of the ordinary relief of the troops at the different ſtations, we have learned that we have marched thus far on the commencement of a freſh campaign; and that our battalions are to oppoſe the enterpriſes of Zemana Shah, the Perſian King, and the Mahrattas; and to co-operate as covering army to the troops at Seringapatam: a meaſure at once judicious and neceſſary. Zemana Shah and his anceſtors have for many years been the ſcourge and terror of Hindoſtan: even by European troops he has been dreaded as the Porus of modern times. I had therefore ſome curioſity to remark the countenance of our Scottiſh regiment, the 78th, when they were informed of their deſtination to oppoſe him. It was gratifying to obſerve that they marched not only with perfect willingneſs, but alacrity to the muſic of the Bag-pipe over thoſe very plains where the troops of Alexander mutinied in circumſtances not diſſimilar.

THE rapidity of our movements will ſeldom admit of my viſiting the interior of the country at preſent; you may however depend on having an account of the ſtate of thoſe parts bordering on our route regularly ſent you. Report ſays, that our deſtination is the foot of Tannaſſis, which is an hundred miles

above

above Delhi, and confequently much higher than any European army ever penetrated into India.

Ever fince we left Caunpore, the country is not only generally cultivated, but difplays at this feafon a great variety of rich crops. The barley is fufficiently high to cover the mold, while bajerrow and fugar that intervene, are between eight and ten feet in length, and fo thick as to exclude the fun. Such places as are not covered with grain are either planted with tamarind trees, or large mango topes, forming a cool fhade to the cattle under their branches.

On looking around, therefore, the whole country feems to be overfpread by large foreft trees, except a fmall circumference immediately in your vicinity. Some extenfive fandy defarts muft lie to the weft of Delhi, otherwife the feverity of the hot winds in this latitude could not be accounted for. Were the duft upon the furface uniformly covered by trees, or by a crop of grain, it could not acquire that exceffive heat which it communicates to the atmofphere during the months of April and May. This is not matter of conjecture; but it is by obfervation difcovered that a large tract of barren fand reaches from the mouth of the Indus to the weft border of the province of Delhi.

The topes here are as ferviceable to travellers as to cattle: no perfon who has not experienced the fatigues of a journey in this country can conceive the

laſſitude and thirſt which the intenſe heat occaſions. Even in the winter ſeaſon, the morning only is cool; towards mid-day the traveller retires to reſt in a tope, where he probably finds a well to quench his thirſt, and to refreſh his weary cattle. So ſenſible are the natives of the benefit, that you frequently meet ſome of them waiting at the well ready with a pitcher and a rope to draw water for ſtrangers; many eſpecially of the females, are in this reſpect as hoſpitable as Rebecca was to Iſaac. Some, I truſt, profit by this kindneſs; for benevolence ſtill poſſeſſes attractions as ſtrongly as in the days of that good patriarch.

The ſerai in Hindoſtan is more ſuited to the rich than poor traveller, ſince even the ſmall pittance that is there demanded, far exceeds the inclination or abilities of an Hindoo. If he has a little rice in his girdle, he feels little concern at the want of the luxury of an houſe; for of the many thouſands who now fill our camp, not a tenth part ſleep under any kind of roof. They kindle fires of any rubbiſh that the place may afford, and after wrapping themſelves in a coarſe blanket, truſt to the fatigues of the day for ſound and refreſhing ſleep.

Should a great man with his retinue paſs along, the ſerai is wholly occupied by him for the time; he ſends before to take poſſeſſion of it, when he gives ſecurity to the Cutwal or Zemindar for the orderly behaviour of his retinue; a precaution probably very neceſſary to the peace and property of the vil-

lage.

lage. The retinues of a feudal lord were never more licentious in Europe, than the idle banditti that at this day accompany an Indian chief on his journey. It is common to have the victuals dreſſed in the ſerai, to have water provided for this purpoſe, and for waſhing the ſtrangers feet, which is here deemed a mark of hoſpitality and politeneſs, as it was by the inhabitants of Judea. The looſe ſandals, and the want of ſtockings, admit much duſt, while the feet ſuffer by the friction of ſo looſe a ſhoe; much greater comfort and relief is derived from bathing the feet than a European would ſuppoſe.

OF THE ZEMINDARY OF ALMASS, AND HIS CONDUCT TO THE RYUTS.

. . . .

Camp near Kinouge, Dec. 9, 1798.

EVER ſince we left Caunpore the country has been uncommonly rich and well cultivated. The ſugar cane and millet crops are nearly ripe; and their appearance makes a fine contraſt with the barley which begins to cover the ſoil. A crop as rich in appearance would lodge and rot in any part of Britain; but there vegetation is encouraged by frequent rain, whereas the barley and wheat here will not receive a ſingle ſhower till they are trode out and ſecured. Almaſs Ali Khan Bahender is collector of the revenue throughout the whole of the Dooab, and on the ſide of Oude from Mirzapore as far as the fort of Tannaſſir, a diſtance of more than four hundred miles.

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He is now about eighty years of age, and from the length of time he has managed this extenſive tract, probably the largeſt in India, he has amaſſed a large fortune, amounting, by report, to ſeveral millions. He is in fact too powerful to be called to account for his management, or to remain in the condition of a ſubject. Had not the late Nabobs of Oude been ſupported by the Britiſh Government, it is more than probable that they would long ſince have fallen a ſacrifice to the treachery or ambition of this powerful chieftain, who makes his progreſs through his diſtrict collecting the rents with an army much more numerous and better diſciplined than that under the immediate command of the Vizier. The character of this man is deſcribed as avaritious in the extreme: it is ſaid that as ſoon as he finds the children and women of a family earn any thing beyond their neceſſary ſupport, that he uniformly makes freſh exactions on the Ryut. If a peaſant can ſupport life upon half a rupee per month, he will ſoon find himſelf reduced by the exactions of the eunuch to that ſum.

These repreſentations are probably exaggerated, ſince it is allowed by all, that the large zemindary under his direction is the beſt cultivated, and the moſt populous of all the Nawab's dominions. The experience of Almaſs muſt long ſince have taught him that it is not by the utmoſt rigor of exaction, or by grinding the faces of the poor, that the greateſt rent can be drawn from any quantity of land. Pro-

tection,

tection, feafonable indulgence, and fecurity, are all neceffary to a fpirited cultivation in every country; and by the effects of thefe it appears that they are afforded to the Ryut here, as perfectly as in any diftrict I have yet feen in India.

THE fame attention is here paid to the planting of topes; the trees in all of them are not only numerous, but they are placed with much religious exactnefs, that they meet your eye in ftraight lines, from whatever direction you view them. In one refpect the raifing of mango groves is conducted with greater care than I have elfewhere noticed: all the young trees are furrounded, during the firft and fecond year, with a plentiful covering of ftraw, which tied at the upper end fpreads below to afford room for the plant, like the thatch fheaf put with you over a bee-hive to defend it from the cold.

YESTERDAY Almafs joined us at Mindy Ghand, near the famous city of Kinouge, which before Delhi, is faid to have been the capital of India. Our eftablifhment of brinjaries already amounts to fifteen thoufand. What will be their numbers when all are affembled, I dare not offer to conjecture; yet with all thefe attendants, befides our elephants, camels, and draught cattle. our march proceeds with much regularity. The elephant's fagacity can hardly be regarded as inferior to that of his guide; for he not only lies down to receive his rider, but he lifts his burden, piece-meal, with his probofcis, and hands it

to a perſon who adjuſts it on his back. He breaks off the branches of trees not only when neceſſary for his food, but when any large branch interferes with the line of march; he bends it with the trunk, till he can put his foot upon it. when it is inſtantly torn down. In a crowd, the people around him ſeldom receive any hurt, for he carefully removes with his trunk thoſe that are upon his road.

We this day paſſed over the ruins of two towns formerly of importance; I could not learn their names; they are probably the ſuburbs of the ancient city of Kinouge, which lies near our camp, towards the interior part of the country. The fields, during this day's march, were equally rich and fertile with any we have yet ſeen. Our encampment was yeſterday upon the bank of a ſmall limpid river, reſembling thoſe in your country in the purity of its water. This ſtream is ſacred; and, according to the faith of many, has greater efficacy in waſhing away moral defilement than even the water of the Ganges itſelf. A perſon in Ceylon drinks daily of this river, though at the diſtance of perhaps three thouſand miles, and at the expence of 5000 rupees per month. It is carried like the water of Hurdwar, in bangies on the ſhoulder.

I went lately to view Minday-Ghaut, a reſidence of Almaſs. The place conſiſts of two Bazars, protected by two mud forts, each about a mile in circumference. The bungalow and gardens of the eu-

nuch

much are of moderate extent and mean appearance. His ordinary retinue, however, consists of about three hundred horse, whose stables are adjoining to the bazars. European vegetables are cultivated here by a manufacturer of indigo, who carries on the business on a larger scale than any I have yet met with. Last year he manufactured and sent to Europe eight hundred maunds, which at the ordinary estimate per acre, gives him a cultivation of no less than 1333 acres of land. The vats are excavations dug in the ground, and neatly lined with brick and lime. The workmen and their utensils are surrounded by a small mud fort, to protect them from the incursions of thieves and banditti. The boldness and numbers of these plunderers is hardly credible, in the upper part of India. Our camp followers steal from each other, or are plundered by the robbers who dash into the camp by night. As often as they are in danger of being detected, they accompany the theft by murder. We had this day the misfortune to have one of the horses of the European cavalry drop into a well; the animal was drawn up unhurt; but the persons employed in this work found three men at the bottom of the well who had been murdered the preceding night. Every cultivated field requires so many of these wells for irrigation, that it is surprising accidents of this nature do not oftener happen.

Dec. 10.—I this day travelled over the ruins of Kinouge, the moſt extenſive perhaps in the world. For many miles before you enter the preſent town, you travel through jungles interſperſed with ſmall fields of tobacco, that conſiſt of brick-duſt and mortar. To remove all doubt that the rubbiſh conſiſts of the remains of a town, walls and broken gateways here and there raiſe their heads in defiance of time. The greateſt part of the ſtanding buildings are ruinous, uninhabited, rent, and tottering to decay. The few poor people now in the place accommodate themſelves under mud huts buttreſſed up againſt the old walls. Not a great many buildings are intire; whole mountains of unſhapely ruins meet your eye in every direction; upon a ſpace of ground much larger than the ſcite of London.

Amidst theſe heaps of deſolation, there are ſpots here and there under tobacco; which is almoſt the only European plant of univerſal requeſt in Hindoſtan. The ruins of ſuch buildings are with great difficulty converted into arable land; for brick-duſt does not aſſimilate with the ſoil till after many centuries; the action of fire having changed its nature. The brick in this country ſeems of an inferior kind; though it is perhaps the oldeſt manufacture in the world, and is baked by being interlaid with beds of ſtraw, which is ſet fire to. The complaint of the Iſraelites that they were compelled to furniſh their tale of bricks without being allowed ſtraw, ſeems here perfectly relevant; becauſe it does not

appear that the Orientals ever had any other method of preparing them. One ſpecies of brick in uſe for the principal buildings of Kinouge, is very rare, of a large ſize, and half vitrified. The colour of this ſort is ſlate blue: it is more coarſe than the common, but has proved far more durable.

The breed of cattle ſeems to diminiſh in ſize gradually as you approach the upper country; as however we are ſtill far from the mountains, it is not eaſy to account for their ſmall ſize here. Bullocks, horſes, aſſes. and buffaloes are not above half the weight that they are in many parts of the lower provinces. Here is however a much greater variety of working cattle than Europe can boaſt of; the buffalo, the camel, and the elephant are little known there, while the aſs and the cow are here often uſed for riding as well as the horſes, yet the former is ſeldom much larger than a good Engliſh ſheep.

OF

OF THE STATE OF THE UPPER DUAB, AND THE VICINITY OF DELHI.

. . . .

Anopsheer, *Dec.* 26, 1798.

OUR route to this, the higheſt ſtation of the Company's troops upon the Ganges, has been through Futtighur, Ferruckabad, Sahebgunge, Mow-Shumſabad, Rhoodol, Cumbul, Doriahgunge, and a variety of other towns, or rather villages; for the country becomes gradually leſs populous as you recede from the Company's provinces This part of our route has frequently been interſected by detached ſhreds of territory belonging alternately to the Nawab Vizier of Oude, and the Mahratta ſtates, and diſplays a worſe ſpecies of human aſſociation than any I have yet witneſſed; for I will not call that gloom of deſolation which gradually thickens as you approach the vicinity of Delhi, by the name of government.

W*E*

We arrived at Anopſheer this morning, and ſhould no enemy appear, it is probable that this will prove the termination of our march upwards. Anopſheer has the appearance of having formerly been a place of ſome ſtrength and conſideration. On the ſouth, the town is defended by a large brick fort; which muſt have been almoſt impregnable to a Mogul army, even although it does not poſſeſs any place that could ſtation a battery of cannon: like Mongheer, Chunar, and Allahabad, it has been erected chiefly againſt cavalry; and is intended to be defended by bows and arrows. The loop holes for theſe are numerous in every part of the wall.

From this citadel there is a commanding view of the whole country, and of the Ganges meandering through it for many miles. That river is at this ſeaſon reduced to a ſmall breadth; its ſtream is as pure and limpid as your rivers in Britain. The weſt bank riſes perpendicular about thirty feet, and on that ſide the country is not overflowed; while on the oppoſite ſide, the ſlope from the bank is almoſt imperceptible, and the fields bear the marks of being inundated for ſeveral miles. On this account the territory of Rohilcund is naturally made more fertile than this part of the Dooab which lies oppoſite.

The town of Anopſheer has on ſeveral occaſions been the ſtation of the Company's troops; and like the other military ſtations, the vicinity has benefited much by the circulation of pay. The fields to the

eaſtward

eaſtward are well cultivated; and what I have not yet often ſeen, they are tolerably fenced. The ſtrong jungle graſs is plaited into webs of a ſort of baſket-work, and theſe, placed upon their edge on the ſides of the field, protect the grain from almoſt every kind of cattle except the wild-hog. Theſe animals are here numerous, as are deer, and game of all kinds. Since the conqueſt of Rohilcund in 1774, that fine country has rapidly degenerated into a waſte, under the deleterious politics of the miniſters of Oude. The natives are a tall, handſome race of people; and when compared with the other inhabitants, are white, and well featured. They ſtill carry about in triumph ſome couches and palankeens of European officers that were killed by their army in the fatal action of 1774, by which we purchaſed a victory at a greater expence of European lives than was ever ſuffered by the ſame number of troops in India.

The country towards Delhi, on the north and weſt, diſplays a naked ſterility which is ſeldom interrupted by the intervention either of trees or cultivation. The forts and great cities in the late convulſions of the empire had moſt frequently the misfortune to attract the violence of depredators. Delhi, and its fertile plains, are ſaid to have been plundered by almoſt every victorious faction; and the preſent dreary aſpect of that capital and its ſuburbs, affords a melancholy proof of the truth of this part of its hiſtory. The town of Anopſheer is contained within a ſtrong mud wall, and therefore is of no great ex-

tent, but of great population. It contains a very unseemly medley of brick and mud buildings; the former from the want of proper cement appear very insufficient. There is at the north end of it a Mahal of some antiquity, and considerable size. It is a large mass without either form or dimensions, and will therefore admit of no description. The surrounding wall of this town is in some parts twenty and thirty feet thick, and of course it could hold out for some time not only against cavalry, but even a train of artillery. It is customary for the zemindar of a village, when the rent is demanded of him, to refuse payment, and betake himself and his effects to the fort. Here he stands out against all demands till reduced by a military force. The government, on its part, adheres to no contract or agreement that may have been entered into with the ryuts; but in a year of supposed plenty, it exacts perhaps twice the quantity: Indeed, at every season it is not what rent the tenant has *stipulated*, but what he is supposed *able* to pay, that is exacted from him. This palpable iniquity of government naturally provokes resistance; and a zemindar whose wrongs have driven him upon his defence is, according to the language of the country, said to be *refractory*. This phrase, like the malignancy of our old republicans, is of such happy ambiguity and vast comprehension, that it implies every sort of guilt; and is deemed punishable by massacre, plunder, burning, or any kind of military execution.

WHILE

WHILE government is thus unjuſt in its exactions, it performs hardly any of the duties due to the allegiance of its ſubjects; for here there are no courts of juſtice, and no protection given againſt thoſe plundering banditti who infeſt the country. For his protection and perſonal ſecurity againſt theſe, every inhabitant muſt truſt to his individual arm; or to the mud forts which defend each village againſt the enemy, or againſt government, which is in fact the greateſt enemy the wretched peaſantry have to fear. The ryuts, driven to deſpair, are forced to take up robbery for a ſubſiſtence; and when once accuſtomed to this wandering and irregular life, it becomes ever after impoſſible to reclaim them to induſtry, or to any ſenſe of moral duty We had yeſterday a melancholy example of the daring profligacy of which they are capable: An officer who rode out only a mile beyond the piquets, was attacked by a party of five horſemen; in the midſt of a friendly converſation, one ſtabbed him in the breaſt with a ſpear, which brought him to the ground; then the others robbed him of his watch, his horſe and every article of his clothing. In this naked ſtate he arrived at the piquet, covered with blood; and had he not been able to walk thus far, he muſt have fared worſe than the man who "between Jeruſalem and Jericho fell among thieves," ſince here there is not one "good Samaritan" to pity the unfortunate.

Dowdal Row Scindiah, under whoſe juriſdiction this country is, has been unable by any means he

has deviſed, to eſtabliſh regularity, or afford protection to the peaſantry. For this end every effort proved abortive, even in days of the plenitude of the Imperial power; ſince one hundred thouſand of this very people (Mewatti) were maſſacred at one time, and yet the diſtrict ſtill continued to be infeſted with maurauders. Lately, when ſix were capitally puniſhed for this offence by Scindiah, a ſtraggling party entered Delhi by night, and inflicted the ſame puniſhment on an equal number of his troops that lay within the city.

After about ten days rainy weather we have a return of the north-weſt wind, with a clear ſky; the mountains to the north eaſt appear unuſually plain. Their diſtance is called two hundred miles, and the nearer ridges are here entirely unſeen. Their appearance is exactly that of ſnowy clouds towering to an immenſe height in the ſkies. It would ſeem that Europeans had not ſufficiently aſcertained the height of the Thibetian mountains: They are ſituated in the center of the largeſt continent in the world, and are probably the higheſt mountains upon its ſurface. Teneriffe, which I have ſeen, and which has the reputation of being the higheſt land on the old continent, would not be at all viſible at the diſtance of theſe mountains, which even here ſeem to ſoar above the clouds. They are eternally covered with ſnow; and when the wind blows from their direction, the weather, to our feelings, is much colder than in Britain. Fluxes and agues are the prevailing diſorders which it brings on.

on. From the heat of [illegible]0 down to 30, is here the range of the thermometer in the fame day, which is probably greater than in any other part of the world.

We this day left our ground at Anopfheer for Lucknow, and Miah Almafs marched along with us. Though he is accompanied only by a few battalions, the confufion among his followers is beyond all defcription. I have been viewing his heavy baggage pafs over a river by two bridges. The confufed noife of men, fheep, goats, bullocks, elephants, and horfes, who all attempt to pafs at the fame time, refembles the uproar of fiends broke loofe from their infernal manfions. Whatever blunders their drivers commit are punifhed upon the poor cattle, whofe backs refound with the blows of their heavy cudgels, and the fame difcipline exercifed on the foldiers atones for the faults of their commanders. *Quicquid delirant reges plectuntur Achivi.*

We are now entered upon the territory of the Rohillas, formerly called Catheir. According to Mr Hamilton, the hiftorian of this people, the name of Rohilcund is but of recent application to this country, and was given it by the conquerors of that tribe. The Rohillas themfelves are, he afferts, the great caufe of the ruin of the country which bears their name; it was parcelled out among their chiefs, who had afterwards but a feeble connection with each other, while their dependence on Haffey Rhamat,

their prince, was more nominal than real. Hence their frequent wars, and their oppreſſive conduct, which gradually wore out the native Hindoos. The Mahrattas had invaded the Rohilla country at the time that they required the aid of the Nabob's troops for their expulſion. The ſum ſtipulated for this ſervice was never paid, and the Nabob to inforce it, ſolicited the Company's aſſiſtance, which effected the payment of the ſum, but fortunately enabled that ſanguinary tyrant afterwards to complete the deſtruction of the Rohilla government, and nearly to exterminate the people.

REMARKS

REMARKS ON THE STATE OF ROHILCUND, AND THE GOVERNMENT OF OUDE.

Barcilly, Feb. 2, 1799.

OUR ſudden march acroſs the Ganges towards Lucknow, was occaſioned by the eſcape of Vizier Ally from Benares, after having aſſaſſinated ſeveral of the moſt reſpectable inhabitants on that ſtation. This illiterate and ſavage youth was raiſed to the throne by the caprice of Azoph Dowlah, about a year and a half ſince, and had been lately depoſed by Sir John Shore, in order to make way for the lawful heir of theſe provinces Saadut Ally, brother to the deceaſed Nawab. This prince juſtly alarmed at the eſcape of a deſperate aſſaſſin, with pretenſions to his throne, has implored the protection of the Company's army; and this circumſtance will afford us an opportunity of examining the ſtate of this ſingular

gular kingdom, which has so long been allied to the British, and protected by their troops.

BARCILLY is a large town, the capital of Rohilcund; the route to it from Anopseer has been by Chandowsee, Bisowlee, Owlah, Aligunge, and some other villages of little note; for this fine country within the last twenty years, has become a vast desart. Extensive wastes every where meet your eye, which were lately in cultivation; but which are now covered with long grass, which in the hot season becomes so parched as to be easily combustible.

OF this we had an alarming proof by the accidental kindling of the grass to the windward of our camp: The flame spread so instantaneously, that it was with some difficulty we were able to save our tents and baggage. This accident suggested to one of our officers a plan of annoying an enemy, which I do not remember to find in use in the annals of the most ingenious destroyers of mankind. It is to set fire to the grass to the windward of the camp, and while the enemy was busily employed in getting it under, to attack him on the flanks and rear: Happily for the prevention of such a measure, such an extent of desolate and rich fields are no where to be met with but in Rohilcund.

AMIDST the present solitude and gloom of this province, you see evident traces of its former cultivation. The clods left by the plough are not yet melted

melted down, ſo as to aſſimilate with the ſurface; nor is the graſs of that extraordinary coarſe and ready ſpecies which riſes upon fields in their primeval wildneſs, or that have long been out of tilth. A very little effort would again bring it back to its productive ſtate, were there inhabitants to cultivate the ſoil.

BUT from the quantity of land under crop, the population of Rohilcund muſt be very ſmall; not the hundredth acre is in cultivation; a proportion ſo ſmall that the wild animals are in danger of devouring the people and their ſubſiſtence. You here ſcarcely ever ſee a barley field that has not ſeveral huts of ſtraw erected without walls, to accommodate a watchman in the night. The deer invade the crops in ſuch numbers, that without this precaution it would be deſtroyed. Foxes, jackals, hares, and almoſt every ſort of game range in the deſerted plains unmoleſted. The march of the army puts them to flight in all directions. It was, I believe, one of the charges brought againſt Mr Haſtings, that he lent a brigade to Azoph ul Dowlāh for the extermination of the Rohillas. The face of the country offers but too ſtrong evidence of the fact of depopulation; but it muſt have been owing to a rigorous policy afterwards that the country remains deſolate, ſince the conqueſt of a Britiſh army has invariably the contrary effect, by increaſing the ſecurity of the people.

THE

The hills have this day and yesterday been constantly in view, and more distinctly visible than ever. They present the appearance of vast towering and abrupt precipices of ice, compared to which, the Glaciers in Switzerland would probably appear as an inconsiderable hill. Nearly in the direction of the mountains, the wind blows fresh, and so cold as to freeze the water in our tents. The thermometer in them has been last night as low as 31°. but this will not account for the violence of the congelation, which I apprehend is owing to the great quantity of saltpetre with which the soil here is impregnated. In China the same circumstance is brought to account for the preservation of ice, which is there carried about the streets upon carts, without melting in any considerable degree.

Feb. 3.—The large river Ram Gunga lies between this city and our last encampment at Aligunge; we crossed it on a bridge of boats, too slender for the weight of the elephants, though it bore the carriage guns. The sagacious animals, apprehensive from its appearance, that it was insufficient for their weight, could not be induced to attempt it, though they passed that stronger one over the Ganges without the smallest hesitation.

The fort of Barcilly is deemed a command of great trust by the Oude government, as it keeps in check this recently conquered nation. It is at present confided to Mirza Ali Khan, a son of the Nawab.

wab. He met our army with a ſplendid retinue of cavalry and howdahed elephants; but did not find the General, who had left the line of march to view the ſcene of action between our army and the Rohillas in 1794.

THESE warlike people, untaught by their former defeats, with thirty thouſand cavalry, bravely attacked our troops, who by ſome ſtrange miſmanagement gave way on the right, and were cut down in great numbers. Our whole line, however, from the center to the left, maintained its ground ſo ſteadily, that the victorious Rohillahs were afraid to reſume their attack, and the battle ended in their total defeat, though with a greater loſs on our part than had been ever ſuſtained by ſo ſmall an army.

MONUMENTS are uniformly erected by the Muſſulmans over the graves of their deceaſed chiefs: many of theſe are now ſtanding here, where a perſon is appointed to keep perpetual lamps burning at the graves of diſtinguiſhed perſons. The Mahommedan religion, however it may prohibit any ſenſible object of worſhip, avails itſelf of the reſpect of friends for their relations, and for eminent characters, in animating their devout feelings: a departed warrior is by them revered as a ſaint.

BARCILLY is a large town, and crowded with inhabitants, who loiter or wander through the ſtreets, without much appearance of buſineſs. It is probable

probable that the want of protection in the country forces a great number into the town; but how they support themselves there does not admit of an easy solution. Few manufactures are vended in a country where the inhabitants are thin, and where even these are so poor as not to aspire at any of the luxuries of life. Sweetmeats and confections, different kinds of grain, with ornaments for the women, seem a great part of the commodities that were exposed to sale in the shops. Brazen water pots are here manufactured, but in smaller numbers since the ruin or emigration of all the wealthy chiefs.

Haffey Ramut, the first Rohilla prince who was slain in the battle of Cutterah, lies interred in a large mausoleum, which forms a very distinguishing ornament to Barcilly. The fort is a large irregular mass of building, equally destitute of elegance or strength. It may however prove a check upon an irregular army without a battering train. Like all the other forts in India, it has no bastions for guns; a strong argument against the practical use of field-pieces being known in the country.

That the enterprise of Europeans settled in this country may add to the industry and wealth of the natives, has already appeared in various instances. Even the wretched government of Oude has not been able to counteract its operation. A few active individuals of our countrymen, in defiance of all the obstacles thrown in their way, have been able to introduce

troduce the culture of indigo and sugar; and to extend the trade in cloth manufactured at Tanda and Kerabad. It is this circumstance that has hitherto warded off, not the decay, but the ruin of this country, which Mr Hastings had predicted. The Vizier's inability to pay the subsidy has often been pleaded; and from the deficiencies of his revenue, upon perhaps fair grounds.

The provinces of Oude and Rohilcund are naturally fertile, yielding rich crops of wheat and barley; and the wretchedness and poverty of the people, however much it may reproach government, does not militate against this fact. In the time of Sujah Dowlah the revenue amounted annually to upwards of three millions, under no very correct management. The natives are themselves of opinion, that with the ordinary protection given to the British territories in India, these provinces would yield a revenue of four millions sterling.

The prosperity of the Vizier's dominions is not only intimately connected with that of the India Company, but with the British commerce in this part of the world. With a greater degree of wealth and protection, their inhabitants would become customers for the broad cloths, cutlery, arms, and other European articles; and might prove the means of conveying them into Candahar, and those nations towards the banks of the Indus. The fertility of the

lands on the banks of the Ram Gunga, the Goomtee, and the Gogra, would powerfully second the efforts of a regular government in improving the condition of the people. "In the Dooab the soil is so much adapted to the produce of indigo, that the plant is there found in its wild state; and in this produces a much greater quantity of dye, and of superior quality to that produced by cultivation *." The sugar cane, which thrives remarkably through the country in Rohilcund, is more luxuriant than perhaps in any other part of India.

The fertility of the Vizier's dominions is secured by the copious streams which every where pervade them, at once enriching the soil and facilitating the means of conveyance. What effects a free trade and protection might produce on kingdoms so greatly favoured by nature, it is difficult to conjecture; but they certainly promise a more abundant supply of tropical productions than the West India islands. Whatever governor shall put in activity these grand sources of improvement, by removing the oppressions and iniquities of the Oude government, will surely confer upon himself higher honour than they can claim who laid the foundation of the British power in India.

The

* Vide Civis Letters, p. 16.

THE outline of a very plaufible fyftem of regulation was publifhed fome years ago, and has, I am informed, received the approbation of fome of the beft judges. It confifts only of a few articles, which you will excufe me for inferting in this place, in the humble hope that they will be adopted.

1. IT was propofed that a member of the Supreme Board, or a fenior fervant fhould be nominated refident at Lucknow, to act as minifter to the Vizier; but anfwerable to the Supreme Board.

2. THAT four civil fervants be appointed to Lucknow, as a board of revenue and trade, at which the refident fhall prefide.

3. THAT the country fhould be divided into diftricts as in Bengal and Behar, and civil fervants appointed to each to collect the revenue, under the fame regulations as in the Company's territories.

4. THAT Adawlets, or courts of juftice, be eftablifhed in each city and diftrict, with a judge and regifter, fervants of the Company, and fubject to the fame regulations, as they are in the other provinces.

THAT

5. That a treasurer and paymaster, and other necessary officers be appointed from the servants of the Company.

6. That all imposts and duties be entirely abolished; and that all goods, the produce of Great Britain, or of the Company's provinces, be permitted to be imported to the dominions of Oude, and the countries west of them, and there sold duty free; and that on the other hand, all articles the produce of the Vizier's dominions, should be imported into the territories of the Company without molestation.

7. That the whole of the Nabob's troops should be disbanded, and two brigades of cavalry, consisting each of six regiments, five hundred strong; and two brigades of infantry of the present strength (1793), be raised to defend and protect the country; these to be on the same footing, in all respects, as the Company's other troops now in these dominions.

8. That the surplus of the revenue, after paying the above civil and military establishments, and other expences of the government, all of which shall be regulated on the strict principles of economy, be paid to the Nabob for his expences, and to defray such pensions as

he

he may choofe to pay to his relations and dependents *.

PROGRESS

* Since writing the above the Marquis Wellefley has refumed the government of Rohilcund, and adopted nearly the very plan here mentioned.

PROGRESS THROUGH ROHILCUND TO LUCKNOW.

* * * * * * * * * * * * *

Camp near Belgram, Feb. 1799.

OUR route through Rohilcund to this town presented to us a great extent of the devastated provinces of the Nawab Vizier. The first march from Barcilly to Fouridpore, conveyed us for fourteen miles through fields almost entirely waste. Two bridges of brick facilitated our passage over small rivers, which water this once plentiful region. The face of the country was, during this day's march, diversified with heights and swells, a circumstance very rare throughout this vast plain, from the Thibetian mountains to the bay of Bengal.

NEAR the line of march, lies Cutterah, a large and ruinous village, remarkable for being the scene of that

that decifive battle of 1774, in which Sujah Dowlah defeated the Rohillas. This action decided the fate of that brave people; for in it Haffez Rhamut, their chief, was flain, and our army penetrated their country as far as Loll Dong at the foot of the mountains.

THE old village of Cutterah, is a motley affemblage of ruinous mud houfes, not a tenth part of which are at prefent inhabited. There are but few officers who were prefent at this engagement, now furviving; only three in our army were there; and thefe from the famenefs of the fields, are unable to give the exact pofition of the two armies.

Feb. 7.—A march of twenty-two miles brought us through the large villages of Tilhara, and Shah Jehanpore; where we faw many fpecimens of the dwarf bamboo: That ufeful timber does not attain to its full fize, fo near the mountains, but branches out into a fhrub of great beauty and utility in a hedge. The new village of Cutterah is furrounded with a very thick range of thefe bufhes, which are ftill of fufficient height to render the houfes invifible. It was at this place I faw a fpecies of the large Bat, or flying fox of India. It meafured three feet and a half acrofs the wings; and the mouth, jaws, and colour of the hair, exactly refembles that of the fox.

The country seems for some part of this journey to have been employed in rice crops. The fields are small, and each surrounded with a small dyke or dam to confine water for this crop; the barley, however, is managed partly in the same manner, and as rice is hardly any where a produce in Rohilcund, it is probable that the small dams have been erected for watering this produce.

There are a great number of inhabitants in Shahjehanpore; the town is confused, dirty and ruinous, excepting a few strong places, that are intended either for prisons or serais; there is no house that rises superior to a hut. We had here an opportunity of noticing the method of educating the children; which seems well adapted for communicating the common and necessary branches at a small charge. The boys are assembled in a kind of open shed or verandah, on the side of the street; the airiness of the place must render it cool and healthy. Each boy is provided with a black board of wood, something like a slate, upon which he writes the letters with a pencil of chalk. While he learns to write the characters, he at the same time acquires their names, and the power of each when joined in a syllable; words and sentences are next learnt; and thus reading and writing are attained by one and the same labour. I am told that these useful branches are learnt very soon, and by as great a number of the common people as in most countries in Europe. The Hindoostanee and the Persian characters are both

both used; some classes write in the one, and some in the other.

We had some specimens of the kilns made use of for drying grain in this country. They are large earthen pots sunk deep in the earth, and under them a furnace for feul. These pots are filled with sand, which is heated almost to redness, when it is taken out, and in that state mixed with the grain. A few minutes in this mixture fits it for grinding, when it is cleared of the sand by means of a sieve. By this method small quantities only are prepared at a time; but such quantities are better adapted to the size and execution of their mills, than larger portions, which would soon imbibe moisture and become unfit for the mill.

Feb. 9.—Ourah. The two rivers near Shahjehamp rendered this day's march short. The country is not so well cultivated as the large towns in its neighbourhood would lead the traveller to expect. Almass has left us on the business of his Zemindary, the punishment of thieves, carrying with him a detatchment of the Nawab's army. The frequency of theft and robbery in this country, is not to be ascribed to lenient punishment of crimes. They are no doubt often undetected, but they are, when discovered, punished with promptitude, and severity. Yesterday we passed by two offenders who had been brought before this chief. A short hearing soon convinced him of their guilt; he instantly ordered their heads to be struck off, and

hung up on a tree in terrorem. The bodies were left upon the ground a perquisite to the jackals. Near the village of Cutterah there were two monuments of the severity of oriental punishment, which I had not before noticed, though such are by no means unfrequent. A small arched appartment of brick was erected round the criminal, who was built up while alive in this enclosure. Suffocation must soon have put an end to his pain. These buildings were pointed out by the natives, who explained their use.

Feb 10.—We this day marched to Srumnagur, 14 miles. The route leads through Shahabad, a very large town; in extent it reaches about two miles, while the scite of the present huts does not perhaps cover one third of the ancient ruins, that appear in the form of hills and broken swells crumbling to dust. This town probably had been verging to destruction, long before the Rohillah conquest; its ruins appear much more ancient and decayed than any which have been effected by that people. or by the Nawab in subduing them. The fields in the immediate neighbourhood of Shabadad, are well cultivated; the crops are barley, wheat, tobacco, and some peas of the small kind. The frost of this winter has apparently been more severe than usual, so far down from the hills. The barley is severely injured: the tobacco seems totally withered, and the mangoe trees, now beginning to blossom, with a full appearance of fruit, nipped or blasted by its influence. It seemed rather extraordinary that the strong frosts we had in the

the neighbourhood of Anopſere did not affect the grain, where it was more intenſe than here; this probably is owing to the crop's being farther advanced; for it had not then come to the ear.

The zeal of the Mahomedans ſeems, in upper India, to have been too intolerant, and too laſting to admit of Hindoo temples of any ſize or magnificence. Few of them are to be ſeen in Rohilcûnd; whereas the moſques are by far the moſt ſplendid buildings in every town. At Shahabad there are many; one in particular claims notice from being entire, and of a very large ſize. Each chief had on his demiſe a large building erected over his grave, where his dependents aſſembled to offer up their prayers for the welfare of his ſoul.

Feb 11.—Buckerah. Our journey was this day only eight miles, through a tolerably well dreſſed country; the ſoil however is bare, and ſo ſandy as to riſe in clouds of duſt. The crop is rather late, partly from want of water, and partly from being blighted by the froſt. The ſeaſon has been ſo uncommonly cold, that the whole dohl is checked and withered before the pea is formed. This crop is therefore loſt. A few ſugar fields have preſented themſelves but the cane is very ſhort and poor in quality. The raiſing of this crop is the chef *d'œuvre* of Hindoo agriculture; it requires manure as well as repeated plowing and often planting the ſlips of cane; they muſt be frequently inſpected and cleared of the white ant, till

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they have begun to ſhoot. This expence is, however, amply repaid when the crop ſucceeds, for no other grain will yield a produce of equal value, a biggah of land bringing ſometimes 60 rupees, even where the ſugar is cheap.

Sandy Point, *Feb.* 13.—The journey to this place on the frontier of Owde, has diſplayed a ſoil more barren and ſandy than any we have yet ſeen on a march of 500 miles. There are vaſt tracts without a tree or ſhrub, which are covered with a cloud of duſt as often as the wind blows, which at this ſeaſon, generally happens from ten to four every day. The bleak, deſolate, and dreary aſpect of the country, where you are conſtantly ſinking at every ſtep in looſe ſand, and blinded by the ſhowers of duſt, gives an idea of the difficulty of travelling through thoſe immenſe deſarts, that lye between this country and Europe.

Even here, however, cultivation ſucceeds where water is produced in plenty, and we have paſſed by ſeveral fields of good grain where the ſoil is naturally as light and ſterile as that which in its wild ſtate is drifted by the wind. The protection of government, ſlight as it may be, has rendered this comparatively barren ſand, to become more productive than the rich plains of Rohilcund, where the people ſeem to feel no other effects of the Oude government, than its oppreſſions, or its vengeance.

A large lake in the vicinity of our camp has ſuppli-

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ed us with plenty of water fowl; among these appear the eyrus, the largest of the aquatic birds. This animal can stretch itself to the height of upwards of six feet; even in its ordinary manner of walking, it is nearly as tall as the natives. It makes a beautiful pet, and is very useful in picking up noxious vermin in a garden.

Feb. 14.—Belgram. This town though placed in our maps at the distance of 16 miles from Sandy-Point, is not in reality above half the distance. Belgram must have been the capital of a large district. It is still distinguished by a ruinous fort, and moal; in the former the foujdar at present resides. The houses of Belgram are generally of brick and mortar, many of them appear to have been large, and in the best stile of Mogul architecture. The present inhabitants here, as in other towns of this country, dwell in small structures, either of mud or timber.

I found the people, on walking through the town, very conversible. They made their children pay me the compliment of a salam; and one in particular gave me a distinct account of the subjugation of the place by the Nawab's troops, and a detachment under a captain Bailie.

ALMASS has the character of a very rigid collector in this country; his avarice, the vice of age, seems to have blinded him to every prudent rule of government. The inhabitants told me that he is never satis-

fied:

fied: if a man pay two rupees, he muſt raiſe him to three; ſhould the three be forthcoming, the next year brings a demand of four; I aſked if he was poor, that he was ſo very avaricious in drawing away all their money, and was at once told what I always have heard, that he is immenſely rich. By ſuch exactions, the once rich town of Belgram is a heap of ruined buildings, interſected with a few huts, under which the ſmall remnant of a wealthy people are obliged to eke out their days of miſery.

In a few days our army will reach Lucknow; for Saudut Ali is in terror of the machinations of his rival; his imagination leads him to apprehend from others a conduct ſimilar to his own; hence the piſtol, the dagger, and the poiſoned cup, continually haunt his mind. The man in this ſtate is ſurely not to be envied: he is deprived of that conſcious integrity which is the great baſis of inward tranquillity; and wants that ſort of defence which Horace calls a wall of braſs,

Nil conſcire ſibi, nulla palleſcere culpa.

PROGRESS

PROGRESS TO LUCKNOW.

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Lucknow, Feb. 23, 1795.

MAWLYAH.—THIS is a very large village; in length, fully two miles. The inhabitants are numerous, but the town is mean and irregular, confifting almoft entirely of fmall mud huts. The country round is better cultivated than any we obferved fince we croffed the Ganges. Almafs, we are told, has had an action with fome of the zemindars, who would not without force pay their rent; we ftop here this day at his requeft; as he has at prefent but a fmall army of his own, it is probable that he means to make ufe of our *name*, (for that is all he will receive), to overawe fome other refractory zemindar in the neighbourhood. The encampment is this day formed in a very extenfive tope of mango trees, whofe fhade affords a delightful cool retreat for the wearied foldiers.

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These trees are in full bloom, and promiſe a remarkably plentiful crop of that favourite fruit. The natives are already pointing to the bloſſoms, with a ſort of exultation at the proſpect they afford. The mango grove is a favourite retreat of the large monkeys. From it theſe animals look down upon us with great contempt, conceiving themſelves, it would ſeem, to be a more exalted order of beings, and for reaſons, which even human vanity might deem plauſible; firſt, they certainly occupy a higher ſtation; ſecondly, they receive from the natives a great degree of veneration, and the homage of daily worſhip; and, thirdly, they live under a better government.

After halting one day we marched to Silhitgunge. The intervening village of Sultangunge conſiſts of mud houſes wholly, but all neat, and in full repair. It is one of the few towns in India which does not exhibit marks of decay. Even here however are the ruins of far more durable and extenſive cities, whoſe only veſtige is to be traced by large mounts of brick-duſt: theſe ruins have been perhaps many centuries in their preſent ſtate. The road ſides were this day moſtly cultivated: the wheat and barley are faſt ripening, and the weather begins to get warm; for the wells under the ſhade of the tamarind trees are now reſorted to by travellers, where they quench their thirſt, and ſhelter themſelves from the ſun.

Feb. 20.—This day brought us through a large jungle into a vast plain, said to be cleared by Miah Almass from a thicket of brushwood. He has here built a village and a house for himself, as he supposes, after the English manner. The place before these operations, is said to have been a nest of thieves, who sheltered themselves in the wide jungle against the searches of the magistrate. The plain somewhat resembles a large park; and is beautified by clumps of mango trees, and fine fields of barley and wheat, which is now getting plump in the ear; a time when grain appears remarkably rich. It is now four months since the rains ceased, yet the whole of the road was this day intersected with sheets of water, owing to a thunder storm that happened two days ago, and which was accompanied with a heavy fall of rain; a rare occurrence at this season.

General St. Ledger has gone to breakfast with the Eunuch Almass in his fine hunting seat; that is, he will carry his own breakfast to the chief's house, for with all his desire to imitate the English, the accommodations of a Mussulman are wretched: he could not produce a breakfast that a ploughman would wish to partake. Miahgunge is built with much regularity, the streets are more than three times the width that is customary, and the houses are all of equal height, fronted with a verandah of wood. The figure of the town is a parallelogram, the whole surrounded with a brick wall and bastions for the security of the inhabitants, against the armed

banditti who pervade the country. The whole is in perfect repair, and, in my eyes, almost redeems the character of the chief from that parsimony for which he is so remarkable.

We marched through the villages of Hossein and Tukitgunge on the 21st. The former is a poor village, named by the Mussulmans after the Imaum Hossein, grandson of the prophet. The soil consists for the most part of loose blowing sand; but such fields as are cultivated carry rich crops of wheat and barley.

This day we passed a very large bridge over the Sye, a petty stream; and at this season very unlikely to require fifteen arches. In the rainy season, however, it is probable the country may be overflowed, as well as the river swollen. We have seen no Mahommedan structures nearly equal to this bridge.

Tukitgunge is a village built by Tukit Roy, Bukshee of the Nawab's army. It is after a regular plan, resembling that of Almass, which also bears his name. The Nawab has constructed a third village, called Fattehgunge, more elegant than either; it is surrounded by a square wall of brick, and in the centre, the several streets meet in a large square, in the midst of which stands the Cutwal's house, the chief magistrate of the place.

Kissen

Kiſſen Chun has greatly beautified this village by a fine tank, lined with brick, and furniſhed on all ſides with elegant ſtairs leading down to the water. Here the Hindoos reſort for ablution, which they could perhaps not otherwiſe obtain without repairing to the Ganges. The agriculture is here not ſo perfect, nor ſo conſiderable in quantity, as might be looked for in the neighbourhood of a large capital, which is now ſo near, that we can diſcern the minarets towering above the intervening groves of mangoes.

THE village of Fattehgunge was built in commemoration of the victory obtained over the Rohillas at Betourah, by Sujah Dowlah.

THE town of Viziergunge, near it, was probably built by the firſt Vizier of Oude. The gates are ſtanding perfectly entire, and are almoſt the only veſtiges remaining by which a traveller can diſcover that a town had ever ſtood there; yet the place was perfectly entire about twenty years ago. The cauſe of its deſtruction is ſaid to have been the refuſal of the Cutwal to deliver up ſome thieves who had moleſted paſſengers going through it. On being threatened with the Nawab's vengeance, it, unluckily for the town happened that ſome perſons were again robbed there that ſame day. On the next, three battalions were ordered to ranſack the town, and deſtroy the inhabitants; an order which they obeyed with ſuch fatal exactneſs, that not a ſingle hut nor inhabitant

inhabitant was left within the walls. The diſtance between the two gates is more than a mile, and that conſtitutes the length of the principal ſtreet. The rows of trees on each are ſtill ſtanding, having eſcaped the flames by which ths houſes were deſtroyed.

I yeſterday went to view this capital, which is ſaid to contain half a million of ſouls. Happening to enter the town at the weſt end; and which contains the poor mechanics, and labourers of every ſort, I never witneſſed ſo many varied forms of wretchedneſs, filth, and vice. The ſtreet which leads to the palace, is upwards of five miles, more than one half of which you wade through mire and filth. During the lapſe of time, the ſtreets ſink from cleaning, or by the blowing away of duſt while dry, ſo that they are fallen in the middle to the depth of ten or twelve feet; and are ſo narrow that two hackaries cannot paſs, nor indeed any carriage however ſmall. My palankeen was frequently ſtopped by the ſmall aſſes, who were paſſing along loaded with bricks. This animal is here ſo ſlender that a ſtout porter could have no difficulty in literally carrying both the beaſt and its burden Solomon muſt have employed an immenſe number in carrying the materials of the temple, if his aſſes were not of a ſuperior breed to thoſe of Lucknow.

THE concourſe of a great number of people perhaps does not any where improve their morals; vice

vice and poverty are the only qualities that this people uniformly display. Some saunter; others lie down in a kind of dubious state between existence and annihilation; others still are intoxicating themselves with the Hookah; a few only labour at their professions. The shew of rich shops and merchandize is remarkably small, though it supplies the luxury of the court, or rather the palace; for here there is little affluence beyond the narrow circle of the prince's family.

The different palaces of the Nawab, the great mosques, and burying places (Imaumbary) display a sort of splendour; for the Mussulmans are fond to excess of decoration; and this taste always shews itself in their dress and houses, whenever an individual can afford to indulge it. There are perhaps no buildings in Britain equally brilliant in external appearance as the palaces of Lucknow. The roofs are gilt, and the architecture loaded with ornaments, which have altogether a considerable effect on the beholder at first sight. There is however no accommodation within, nothing for comfort or even convenience, the whole being intended for external glare.

The body of Azoph Dowlah lies interred in an Imaumbary, lighted with a vast number of wax tapers; the grave is strewed with flowers and gilt paper. At one side is a censer with various perfumes; at the other his sword and cummerbund; and oppo-

site

ſite the head lies the tiara or turban, and a copy of the Coran. The grave itſelf is covered with rich bread of barley from Mecca. The whole vault conſtantly echoes to the voice of a company who continue chaunting the Coran. This place has a grand and ſolemn appearance. Religious ideas have a favourable acceſs, while you ſtand amidſt the duſt of kings, and contemplate the inefficacy of their efforts to continue even a ſemblance of their majeſty after death.

THE

THE COURT OF LUCKNOW, AND CABINET ON THE DOWLAT KHANAH.

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Lucknow, March 9. 1799.

We had this day an opportunity of feeing the Mahomedan fpring feftival, (*eida.*) celebrated by the Nawab. This takes place annually on the firft day in March, after the new moon becomes vifible, and is kept in commemoration of Abraham's facrifice. A camel inftead of a ram, is here held to be the fubftitute. The princes of Hindooftan march in proceffion, at this ceremony, with all their courtiers, and a large military efcort. On fuch occafions the oriental tafte for fhow, and gaudy magnificence, is difplayed with labourious and ftudied attention. And their fuccefs muft be acknowledged; for though on a clofe infpection their drefs and ornaments will not gratify a chafte tafte, yet in a proceffion they have a grand effect. The howdah's, palankeens, and harneffing

neſſing of the elephants, are ſo contrived as to exhibit one blaze of gold, in which the ornaments from their number cannot well be diſtinguiſhed.

The moſt ſplendid European court probably falls much ſhort of the magnificence of Saadut Ali upon this occaſion. At day break he marched from the palace with more than ten thouſand men in his train, excluſive of the military eſcort, which might amount to two thouſand more. His progreſs was directed to a large plain where tents had been pitched on the preceeding day for the entertainment of the company. The prince all the way, as well as one of his courtiers, was ſupplied with bags of money, which they ſcattered among the multitude. In this exerciſe it was remarked that his highneſs was extremely tardy; the courtier diſperſed two bags in leſs time than he did a ſingle one. His hands ſeemed to perform with awkward reluctance an office in which they were but feebly ſupported by the parſimonious ſenſations of his heart.

As notwithſtanding its pomp and oſtentation this is a religious ceremony, the firſt part of it, after arriving at the ground, conſiſts in a ſolemn invocation of the Deity for plenty and proſperity during the enſuing ſeaſon: and though the prayers are here accompanied with alms, it is probable that few beneficial effects are produced by theſe indiſcriminate donations. That idle crowd which haunts every large capital, here conſiſts of the moſt profligate and worthleſs

worthleſs of the human race; and of theſe it is only the moſt reſolute and daring who profit by the ſcramble. Their gains ſerve perhaps no other purpoſe than to ſupply their diſſipation for a few days, when they are again forced by their indigence to deſperate courſes.

Here the tranſitions from tranſient acts of devotion to the groſſeſt crimes, is ſhort and frequent. Only two days before this devout proceſſion, an attempt was made by ſome of theſe ruffians to aſſaſſinate Hoſſein Reza Khan, a very popular miniſter of the prince. It failed in the execution, and may therefore probably be ſoon reiterated. A few days before this period ſeveral of the troops were found out in a traitorous correſpondence with the depoſed Nawab. Superſtition, treachery, and cruelty go here ſo cloſely connected, that few moments only can intervene where reaſon guides the conduct. This religious ſolemnity probably, amidſt all its ſplendour, did not afford one ſacrifice either of clean hands, or a truly devout heart. Ten thouſand rupees were given as donations to the Company's troops; a few of whom were added to contribute to the ſplendour of the occaſion. Amidſt all this blaze of wealth and magnificence, thouſands of poor wretches are ſeen on the road to all appearance in real want. There is not, perhaps, in the whole compaſs of human affairs a more ſtriking diſplay of the inequality of conditions, than this ſcene affords. Extravagant wealth is amaſſed in the hands of one man, and is confined to the

narrow circle of his favourites; and this superfluous ſtore is grinded from the faces of the indigent, who are wallowing in all the filth of penury and wretchedneſs.

This ceremony, grand as it appeared, is probably a miniature only of the Court of Delhi, in the proſperous times of the Mogul Empire. There the wealth was nearly tenfold of what is poſſeſſed by the Court of Lucknow, and equally under the controul of a ſingle perſon.

The feſtival of Eida ſeems to reſemble the feaſt of Tabernacles among the Jews, which by that people was obſerved, we are told, with as little moral effect or purity of intention. "Your new moons, and your Sabbaths, I cannot away with; waſh ye and make you clean; put away the evil of your doings, &c." The Muſſulmans and the Jews ſeem to have equally regarded ſuperſtitious obſervances, as a ſubſtitute for every moral virtue, and a compenſation to the Deity for the violation of his laws.

March 15.—I this day went to view the Nawab's Menagerie, which conſiſts of different birds and quadrupeds. In this collection, variety or uſefulneſs has not been ſo much ſought after, as the oddities of nature. Such a cabinet might be extremely uſeful, if models of machines for the improvement of huſbandry or manufactures, or ſuperior breeds of cattle for the purpoſes of agriculture, were collected for the

inſpection

inſpection of the people; but no views of this kind ſeem to have actuated the Princes of Oude in the formation of their collection.

The different ſpecimens of clock-work are curious and expenſive, but by no means calculated to explain to the natives the principles of that uſeful machine. They are viewed here as elegant toys or play-things, which captivate by the ſurpriſe which is neceſſarily occaſioned by ſeeing their effects; but I do not find that any native has yet attempted the conſtruction of a watch or clock.

In the ſame apartments in which theſe machines are kept, there is a conſiderable number of mirrors and other toys, which, though uſeleſs here, muſt have coſt an immenſe ſum in bringing them from Europe. Some paintings are here ſhewn, both native and European: the moſt ſtriking of theſe is a portrait of Sujah Dowlah in the act of ſhooting a tiger, which had leaped upon the howdah of Colonel Harper, and was ready to carry him off. This engaging picture is hurt in the effect by being too ſmall.

A conſiderable number of tigers are kept in different apartments near the palace, but ſo mean and naſty in their appearance that a conſiderable tax is laid upon your patience in going to view them. To their keepers the tigers are ſo tame, that they allow,

them to ſtroke them on the back, as a cat, and like that animal, ſeem gratified by your attention.

The rhinoceros is the moſt remarkable animal in this collection; the only one here is about twelve years old, and ſeems not yet to have attained its full growth, being of a much leſs ſize than the ſpecies generally attains. His ſtrength and ferocity are prodigious: no elephant dares to attack him; for his horn proves at firſt ſtroke fatal: it is a large protuberance growing exactly upon the ſnout, and ſharpening into a point, and with it he can rip up the belly of the largeſt elephant.

The rhinoceros is protected by a thick horny ſubſtance, ſtudded over like a ſhield; which from its hardneſs and thickneſs muſt protect the animal from any foe. A ſword would make no impreſſion upon this ſingular hide, and where it overlaps, it would probably repel a muſket ball.

Of the ſheep there is a great number, and ſome variety; but the Cabul breed ſeems to enjoy the largeſt ſhare of the royal favour. They are in general very fat, and diſtinguiſhed by a large protuberance on the rump far exceeding that of the Cape ſheep. This excreſcence is ſemicircular in form, and of nearly half the ſize of the whole body. Some of theſe ſheep are painted in different colours to gratify the fantaſtic taſte of the natives, a practice which they follow with their bullocks and horſes. When

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they intend to appear very fine, they go so far as to gild the hoofs and horns.

The stables of the Nawab consist of a large square court of buildings, supported on brick pillars, with a view to the admission of air: these consist of more than one range; that which I examined contained about four hundred stalls, almost all filled with very excellent Persian horses. There are separate studs for mares; but breeding does not seem the favourite pursuit here: I saw but four foals; probably the confinement in which they are kept is unfavourable to the dam and the colt. A park of mares and colts is deemed in England a very agreeable object, but in India it is unattainable, the fields being parched for nine months in the year; a groom is here put to his wits end for provender; hay is unknown; grass roots scraped up with a sharp trowel, being the substitute for this provender; and, it is often procured on places which you would declare absolutely bare earth; every thing above ground being completely burnt away.

A very large breed of Guzarat bullocks is kept in a cow-house near the stables: the introduction of this breed among the peasants, one would imagine would prove of great advantage in a country where the draught cattle are so small and pitiful as those of Oude. But the Ryut, if he gets his labour done, cares not in how slovenly a style it may be executed;

or

or even how ſmall the quantity performed. This is the nature of the race, even where it is fully protected; what then can we expect here, where nothing is ſecure, and where a good teem of cattle would be a kind of attractive bait, to bring the robbers to a farm, or an Aumil from the Court, both equally addicted to plunder?

ONE of the curioſities of this place is a mixed ſpecies between the goat and deer, which is ſpotted, and neater in its form than the ordinary goat. The variety of horned cattle, horſes, and ſheep, is much greater than in Europe. Here are kept a few buffaloes in remarkably fine condition: they are not fully tamed; and by ſome means or other are much handſomer than the common domeſtic kind. Apes, monkies, and a variety of the tropical animals, make a part of the raree ſhew exhibited at this Court: one of the former is taught to make a very genteel ſalam to his viſitors. The natives of India are very fond of theſe accompliſhments; many of them ſpend whole days in teaching parrots to ſpeak a few Perſian words. The management of the Menagerie employs a great number of people; and although their allowances have been much curtailed ſince the commencement of the preſent reign, the department muſt ſwallow up large ſums. Many crores of pigeons are kept at the public expence, and elephants and camels to a large amount.

THE

. THE food beſtowed in this manner would remove want from the city, if not from the kingdom of Oude: But the art of government is leſs underſtood, or more perverted in India, than any other ſcience, meanly as we may regard their attainments in them all.

